VERIFICATION REPORT OF AFFORESTATION IN EUCALYPTUS AND ACACIA PLANTATIONS FOR BURAPHA AGROFORESTRY CO., LTD.

Document Prepared By Earthood Services Limited

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Prepared By	Earthood Services Limited
Contact	Physical address: 1203-1205,12th Floor, Tower B, Emaar Digital Greens, Sector 61, Gurugram, Haryana, India 122011 Telephone: 911244204599 Email: info@earthood.in Website: https://www.earthood.in/
Approved By	Kaviraj Singh
Work Carried Out By	Team Lead & Verifier: Karamjot Kour Verifier (Trainee): Deepak Prajapat TA (14.1) Expert: Rajesh Monga Local Expert: Bounthan Technical Reviewer: Ashok Kumar Gautam TA (14.1) Expert to Technical Reviewer: Nepolion Borah

Summary:

- A brief description of the verification and the project

Earthood Services Ltd. (formerly known as Earthood Services Private Limited, hereafter known as Earthood) has carried out the verification assessment of the project activity "Afforestation in Eucalyptus and Acacia plantations for Burapha Agroforestry Co., Ltd" VCS ID 2367. The assessment covered the monitoring period from 23/12/2020 – 31/12/2022 period. The project activity falls under sectoral scope 14, Agriculture Forestry and Other Land Use (AFOLU) type and category Afforestation, Reforestation and Revegetation (ARR) as per the latest VCS Standard, version 4.5. This is a grouped. The project involves agroforestry plantations (primarily Eucalyptus timber species) in Vientiane Prefecture and the Provinces of Vientiane, Xayabouly, and Saisomboun in Central Lao People's Democratic Republic (Laos). The project is being implemented by Burapha Agroforestry Co., Ltd. The project applied CDM approved large scale methodology AR-ACM0003 "AR Large scale - Afforestation and reforestation of lands except wetlands", version 2, and its associated tools to quantify the amount of greenhouse gas reductions achieved through this project. The calculation of project emissions reductions achieved for the current monitoring period has been carried out in a transparent and conservative manner and were made available in emission reductions calculations spreadsheets for the verification assessment.

- The purpose and scope of verification

This assignment is an independent assessment by a Third Party (Earthood) of the project "Afforestation in Eucalyptus and Acacia plantations for Burapha Agroforestry Co., Ltd" (VCS 2367) against all defined criteria set for the registration under the VCS Standard, version 4.5. Verification is conducted using Earthood procedures which are developed in line with the requirements specified in the VCS Validation and Verification Manual v3.2.

The purpose of the Verification is to confirm that the project and all related project documentation are in accordance with all rules and requirements of the VCS Standard v4.5, applied methodology AR-ACM0003, version 2.0 and its associated tools.

- The monitoring period

This is the fifth monitoring period spanning from 23/12/2020 – 31/12/2022.

- The method and criteria used for verification

The verification team has reviewed the project activity in accordance with the rules and requirements specified in the latest versions of VCS standard and checked the applicability of the project against the applied methodology and tools which includes the following:

- VCS Standard, version 4.5
- VCS Program Guide, version 4.4
- VCS Program Definitions, version 4.4
- VCS Validation and Verification Manual, version 3.2
- AFOLU Non-Permanence Risk Tool, version 4.0

- The number of findings raised during verification

During the verification process 05 clarification, 10 corrective action requests were raised and successfully resolved. 5 forward action requests (FARs) was raised during last verification period which was assessed and based on the assessment 2 FARs have been carried forward to next verification.

- Any uncertainties associated with the verification

There were no uncertainties associated with the verification process. The verification team has checked the information given in the monitoring report and checked the calculation of emission reductions achieved in this monitoring period. Each detail has been checked through document review which is not only confined to information provided by project proponent (PP) but also by undertaking an independent evaluation of relevant publicly available information by making use of technical expertise of the assessment team. Project implementation activities, monitoring activities and contributed SDGs have also been confirmed during a remote site visit and the responses provided by stakeholders were positive. Thus, there are no evident uncertainties associated with the verification in this monitoring period.

- Summary of the verification opinion

In conclusion, it is Earthood's opinion that the project activity "Afforestation in Eucalyptus and Acacia plantations for Burapha Agroforestry Co., Ltd" (VCS 2367) implemented in the project area Laos, meets all relevant requirements for VCS standards and guidelines, and correctly applies the methodology AR-ACM0003, version 2.0 for the calculation of baseline, for determining additionality and to monitor emission reductions. For the current monitoring period, the implementation of the project activities has resulted in emission reductions of 163,075 tCO_2e. Buffer credits allocation is 16,308 tCO_2e (10%) and eligible Verified Carbon are 146,768 tCO_2e.

1 INTRODUCTION

1.1 Objective

Earthood was contracted by Burapha Agro-Forestry Co. Ltd to undertake the second verification of the project activity "Afforestation in Eucalyptus and Acacia plantations for Burapha Agroforestry Co., Ltd" (VCS ID 2367).

The objective of the verification is to undertake an independent third-party assessment and to approve the monitoring report, emission reductions and all the related project documentation & supporting documents are in accordance with the rules and requirements of the VCS Standard v4.5.

Especially the project's implementation plan, and the quantification of emission reduction & removal and non-permanence risk analysis is in line with relevant VCS requirements and host Country criteria are assessed to confirm that the project implementation, as documented, is comprehensive and practical and meets the identified criteria. Independent third-party assessment is a requirement for all VCS projects and is mandatory to provide assurance to the Verra and other stakeholders of the quality of the project and its achieved Verified Carbon Units (VCUs) generation.

1.2 Scope and Criteria

The scope of the services provided by the Earthood for the project is to perform VCS verification of the Afforestation in Eucalyptus and Acacia plantations for Burapha Agroforestry Co., Ltd (VCS2367). The scope of verification is to assess the emission reductions achieved in this monitoring period as presented in the monitoring report (VCS MR) and emission reduction calculation sheets against the VCS Standard version 4.5, applied methodology AR-ACM0003, version 2.0 and its associated tool and other relevant rules and requirements established for VCS project activities.

Verification Process and Methodology

The verification process is undertaken by a competent verification team and involves the following:

- the desk review of documents and evidence submitted by the project participant in context of the reference VCS guidelines issued by Verra
- verify whether the project, implementation plan, and calculated emission reductions achieved in this monitoring period meets the requirements of VCS Standard v4.5, VCS program guide v4.4 & VCS program definition v4.4

- evaluate whether the implementation of the project activity is in conformance with the registered and approved implementation plan given in VCS PD
- undertaking/conducting site visit or remote site visit, interview, or interactions with the representative of the project participant,
- reporting audit findings with respect to clarifications and non-conformities and the closure of the findings, as appropriate and
- preparing a draft verification opinion based on the auditing findings and conclusions
- technical review of the draft verification opinion along with other documents as appropriate by an independent competent technical review team
- finalization of the verification opinion (this report)
- an independent technical review team reviews the verification report made by the verification team. After the final report is accepted by the technical reviewer it is then approved by Earthood which is processed further according to the VCS procedures

Earthood has performed verification based on a risk-based approach focusing mainly on the significant risks to meet the qualification criteria and the ability to generate VCUs. The verification is not meant to provide any consulting towards the client. However, stated request for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Level of Assurance

In accordance the VCS Standard v4.5 para 4.1.2 and 4.1.8, the level of assurance of this verification report is reasonable. VVB has reviewed sufficient evidence to verify the project implementation, data, and parameters, and achieved emission reductions calculations for this monitoring period. Further clarifications were asked, and all the discrepancies found during the verification assessment have been raised as audit findings, are successfully closed.

1.4 Summary Description of the Project

Earthood Services Ltd. (Earthood) has carried out the verification assessment of the project activity "Afforestation in Eucalyptus and Acacia plantations for Burapha Agroforestry Co., Ltd" VCS ID 2367. The assessment covered the monitoring period from 23/12/2020 – 31/12/2022 period. The project activity falls under sectoral scope 14, Agriculture Forestry and Other Land Use (AFOLU) type and category Afforestation, Reforestation and Revegetation (ARR) as per the latest VCS Standard, version 4.5. This is a grouped. The project involves agroforestry plantations (primarily Eucalyptus timber species) in Vientiane Prefecture and the Provinces of Vientiane, Xayabouly, and Saisomboun in Central Lao People's Democratic Republic (Laos). The project is being implemented by Burapha Agroforestry Co., Ltd. The project applied CDM approved large scale methodology AR-ACM0003 "AR Large scale - Afforestation and reforestation of lands except wetlands", version 2, and its associated tools to quantify the amount of greenhouse gas reductions achieved through this project. The calculation of project emissions reductions achieved for the current monitoring period has been carried out in a transparent and conservative manner and were made available in emission reductions calculations spreadsheets for the verification assessment.

2 VERIFICATION PROCESS

The verification process adopted by the VVB is in accordance with the Earthood internal auditing procedures and VCS Standard version 4.5 and VCS Validation and Verification Manual version 3.2 and are as follows.

2.1 Method and Criteria

The verification process involved the following.

- A review of the data and information presented by the project proponent in context of the reference VCS rules and guidelines to verify their completeness.
- Undertaking site visit, interview, or interactions with the representative of the project proponent, project employees and local stakeholders,
- A review of the monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, and the quality assurance and quality control procedures.
- A review of calculations and assumptions made in determining the GHG data and emission reductions.
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

- Site inspections were carried out including interviews with representatives of PP. The sampling approach followed by the verification team is given in section 2.4 of this report.

2.2 Document Review

The VCS verification of the project was performed by Earthood through the document review and remote site visit completed in line with the requirements specified in the VCS standard, VVB manual and applied methodology AR-ACM0003 and other VCS documents.

Additionally, cross checks were performed for information provided in the monitoring report (MR) using other independent source of information. The list of documents reviewed during the verification process is provided under appendix III of this verification report. Remote site inspection was carried out by Team Leader that covered interviews with PP and relevant stakeholder, review of photographic evidence and videos of sampled sites of plantation plots. Below are the details of verification team members and technical reviewer.

Verification team members

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	Physical site inspection	Interviews	Verification findings
1.	Team Leader, Verifier (New)	IR	Kour	Karamjot	Central Office	Y	N	N	Y
2.	Team Leader, Verifier (Old)	IR	Sharma	Riya	Central Office	Y	Y	Y	Y
3.	Verifier (Trainee)	IR	Prajapat	Deepak	Central Office	Y	N	N	N
4..	TA Expert (14.1)	IR	Monga	Rajesh	Central Office	Y	N	N	Y
5.	Local Expert	EI	-	Bounthan	Central Office	Y	Y	Y	Y

Technical reviewer and approver of the verification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)
1.	Technical Reviewer	IR	Gautam	Ashok	Central Office

2.	TA Expert (14.1) to TR	EI	Borah	Nepolion	Central Office
3.	Approver	IR	Singh	Kaviraj	Central Office

2.3 Interviews

Stakeholders including PP interviewed during site visit are listed below.

No.	Interviewee			Date	Subject	Team member(s)
	Last name	First name	Affiliation			
1	McWhitter	Luke	Burapha Staff	16/05/2023	Role and involvement in the project, project objectives, implementation status of activities that led to intended GHG benefits, monitoring and management activities, role and involvement in the project, awareness about project activities and benefits, grievance mechanism, trainings provided, their feedback, Role and involvement in the project, objectives, monitoring and implementation plan, SOC measurement, SDG contributed, feedback	Riya Sharma, Bounthan
2	Belinda	Kinkead	Silvicarbon	16/05/2023		
3	Axelsson	Helena	Silvicarbon	16/05/2023		
4	Massey	Chief	Burapha risk and sustainability manager	16/05/2023		

Farmers from Phongnern village, Phonmuang village, and other stakeholders including field team, monitoring team were also interviewed.

2.4 Site Visits

The on-site visit was conducted from 16/05/2023 to 20/05/2023.

The verification team has identified no. of plots to be visited during the on-site visit. Sampling approach for plot measurements applied is as follows. The sampling approach has been taken from CDM Standard Sampling and surveys for CDM project activities and programmes of activities, version 9.0. According to para 27 of the standard, When the project participants or the coordinating/managing entity have not applied a sampling approach, the DOE may apply a sampling approach, choosing a different confidence/precision than the ones indicated in paragraph 11 above, provided that samples are randomly selected and are representative of the population. Para 11 says Where there is no specific guidance in the applied methodology, the project participants or the coordinating/managing entity shall use 90/10 confidence/precision as the criteria for the reliability of sampling efforts for small-scale CDM project activities and 95/10 for largescale CDM project activities.6 Where two or more project activities, CPAs or PoAs are grouped for undertaking a common survey it shall be ensured that a confidence/precision of 95/10 is achieved for each of the project activity, CPA or PoA that is included in the group for the survey.

VVB has applied 90/30 confidence/precision for the sample size 160 plots. Out of 206, 8 sample plots randomly selected will be included for site visit, out of which the verification team will visit 3 PSPs and 5 TSPs.

Representative from the stakeholders were identified and requested to be present on the agreed day of the site visit. Photos, and geo-coordinates of tree measurements were collected on site.

Interviews with PP team were conducted to confirm the project objectives, current monitoring and implementation plan, trainings, or programmes delivered under this monitoring period. Other project details such as present land status and legal measures taken to prevent further land encroachment was also discussed. PP and local stakeholders also discussed potential environmental and socio-economic impacts, continuous mechanism of stakeholder consultation, stakeholder feedback and any grievances received from the locals.

Interview with stakeholders present were asked about their role, awareness of project implementation status, outcomes achieved in this monitoring period, and medium of communication to discuss project timelines and site inspections. They were also asked about how training programmes have been imparted in this monitoring period and discussed any support provided by PP, constructions completed in their villages as mentioned in the MR, trainings provided and their feedback about the project. They extended their support to the project and provided positive feedback. Evidence along with other supporting documents submitted by PP to the verification team for the assessment are listed in appendix III.

2.5 Resolution of Findings

The process for raising the findings (corrective actions, non-conformities, or other findings) by the verification team is carried out after thoroughly reviewing supporting documents shared by project proponent. Observations of remote site visit inspection were also raised as audit findings. As an outcome of the verification process, the verification team can raise different types of findings as per the following understanding:

A Clarification Request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met

Where a non-conformance arises the team leader shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions.
- The VCS standard, methodology and modules requirements have not been met; - there is a risk that emission reductions cannot be monitored or calculated.
- The validation process may be halted until this information has been made available to the team leader's satisfaction. Information or clarifications provided as a result of a CL may also lead to a CAR.

A Clarification Request (CL) will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A Forward Action Request (FAR) will be issued when certain issues related to project implementation should be reviewed during the following verification assessment.

During the verification process, total 05 CLs and 10 CARs were raised and resolved satisfactorily. The list of CARs/CLs raised, and the responses provided, the means of verification, reasons for their closure, and references to correction in the relevant documents are provided in Appendix IV of this report.

2.5.1 Forward Action Requests

Two FARs (FAR#06 and FAR#07) has been raised to be addressed in next verification. More details are provided in Appendix IV of this report.

2.6 Eligibility for Validation Activities

Earthood is accredited for validation and verification for the VCS sectoral scope 14 AFOLU as well as by VERRA board.

3 VALIDATION FINDINGS

Verification activity was performed to check the correctness of analysis of land encroachment identified during previous monitoring period. Please see section 3.3 of this report. No other verification activities were performed for gap validation, validation of methodology deviations and project description deviations, and the inclusion of new project activity instances into grouped projects.

3.1 Participation under Other GHG Programs

Not applicable. The same is discussed during the interview with the PP and has been verified by reviewing the signed MoU and declaration submitted by the PP. The double counting risks were also checked, and it was verified that no such risk is applicable as mentioned in the validated PD.

3.2 Methodology Deviations

There is one methodology deviations sought for this project as provided in MR section 3.2. In this project, the deviation has been sought the lay out the temporary sample plots along with the established permanent sample plots. VVB checked the justification to include the temporary sample plots in the monitoring plan and it was found that the current deviation from the registered monitoring plan is justified correctly. VVB confirmed that the deviation meets with the criteria and specifications for permitted methodology deviations. It is not negatively impacting the conservativeness of the quantification of GHG emission reductions or removals. *It is concluded that the* methodology deviations applied to the project is valid.

3.3 Project Description Deviations

PD Deviation 1: Change in Carbon Advisor

There one project description deviation in the Other Entities Involved in the Project. Burapha's carbon adviser has changed from Unique – Forestry and Land Use to SilviCarbon B.V. VVB has confirmed that this PD deviation does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in conformance with the applied methodology.

PD Deviation 2: Inclusion of Leakage Variables in Monitoring Plan This deviation has been sought for the inclusion of leakage variables which have been accounted in second monitoring period. The MR section 3.2.1 reported the deviation from the registered monitored plan and project parameters. The variables introduced to the project monitoring plan through this deviation are (a) area of intercropping, (b) year of intercropping, and (c) type of crops. The project deviation has been reviewed and found that the parameter to account the leakage in the project has been appropriately introduced in the MR sections 4.2 and 5.1.

Section 5.4 Leakage presented the evidence, and it confirmed through documentation review and site visit observations that no new PAI were added in the current monitoring period. Table 13 of the MR presents GHG emissions due to leakage. VVB confirmed that the PD deviation sought is conservative. The approach is further explained in the section 4.4 of the VR. It is also confirmed that the deviation is sought in conformance with VCS Standard v4.5, section 3.21 (3.21.2) which says that "where the deviation does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in conformance with the applied methodology, the deviation shall be described and justified in the monitoring report. This shall include a description of when the changes occurred and the reasons for the changes. The deviation shall also be described in all subsequent monitoring reports. VVB confirmed that the deviation is sufficiently described and justified in the MR.

3.4 Grouped Project

Though this is a grouped project, PP has not included any new instances in this monitoring period. This has been confirmed in the section 3.3 of the MR. Therefore, no verification opinion is required to the inclusion of the new project activity instances as it is not application in current verification.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The implementation status of the project activity for the current monitoring period (23/12/2020 – 31/12/2022) has been verified as follows:

Criteria	Verification assessment
The existence of any material discrepancies between project implementation and the project description.	The verification team has checked the project implementation /1/ and found that the project has been implemented in this monitoring period in accordance with the monitoring plan provided in registered PD. On the basis of the site visit conducted with PP, communities and other relevant stakeholders, and assessment of the documents, it was confirmed that there were no material discrepancies between project implementation carried out in this monitoring period and project implementation mentioned in the validated project document (VCS PD). VVB checked the monitoring plan and the completeness of monitoring and found that there are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology.
The implementation status of the monitoring plan and the completeness of monitoring, including the suitability of the implemented monitoring system (i.e., process and schedule for obtaining, recording, compiling, and analyzing the monitored data and parameters).	The project activity has been Implemented in line with the registered PD, applied methodology AR-ACM0003 procedures and all applicable tools. The VVB confirmed the implementation status of the monitoring plan and the completeness of monitoring including the suitability of the implemented monitoring system.

The existence of any material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology.	It was confirmed through the site observations, interviews conducted with PP, communities and other relevant stakeholders, and assessment of the documents provided, that no material discrepancies between the actual monitoring system and the monitoring plan set out in the PD and the applied methodology.
Whether the project has received or sought any other form of environmental credit, or has become eligible to do so since validation or previous verification.	PP has confirmed by submitted declaration that it has received or sought any other form of environmental credit.
When the project is in a supply chain, whether public statements have been made by the producer(s), retailer(s) or project proponent (as applicable) saying that VCUs may be issued for the GHG emission reductions and removals associated with the impacted goods and services.	Not applicable as the project does not involve any activity in supply chain.
Whether the GHG emission reductions or removals generated by the project have become included in an emissions trading program or any other mechanism that includes GHG allowance trading.	PP has not included GHG emission reductions or removals generated by the project in an emissions trading program or any other mechanism that includes GHG allowance trading as confirmed through a risk-based review by the verification team. The declaration for the same has also been submitted by the PP.

Whether the project has implemented the activities that result in the SD contributions described in the monitoring report.	The verification assessment of the SDG contributions in this monitoring period has been provided in the section 1.11 of this report. It is concluded that the project is contributing to SDG 8, 13, and 15. VVB confirmed that the project has met the requirement of the VCS Standard version 4.5 section 3.10.2. The total emission reduction calculation and filed measurement data was checked to verify the net GHG emission reductions. In response to this findings, Table 2 in the MR has been updated to reflect the requested changes and aligned with the SDGs of Laos. SDG Indicators has been specified in the Table. MR has been updated with a new section in 1.11 to show how the project activities are consistent with the Lao Government's SDG objectives, national policies and strategy. SDG contributions and progress: Burapha closely follows the socioeconomic and livelihood status on partner villages and undertakes Village Benefits Assessments to quantify the impact of the project on villages at a regularly interval. The 2018 Village Benefits Assessment also confirms that Burapha activities have "created a concentrated, beneficial, and transformative improvement in household incomes and assets in villages". Labor rates are reviewed periodically and communicated to all partner villages. Triggers for review are based on local economic factors such as inflation and competitive industries. VVB assessed the project documentation and record keeping and found it sufficient to justify the SDG contributions.
For AFOLU projects, the implementation status of project activities that lead to the intended GHG benefit that commenced prior to the monitoring period.	The implementation status of the project was discussed during remote site visit, and it was confirmed that all the project activities mentioned in the monitoring report were completed during this monitoring period and sufficient evidence were submitted by PP to substantiate the project outcomes. The verification team confirm the project net emission reductions generated in this monitoring period 60,226 tCO2e. and confirmed that the project is being implemented as per the monitoring plan given in validated PD.
An assessment of the audit history table with a conclusion about its accuracy	PP has correctly provided the audit history in the MR. this verification is completed for the second monitoring period spanning from 23/12/2020 to 31/12/2022
any previously validated methodology deviations	PP has sought one methodology deviation which has been verified and reported in section 3.2 of this report.

The verification team has reviewed the submitted evidence and confirmed the implementation of the project in second monitoring period during site visit interviews in order to verify the information presented in the monitoring report.

4.2 Safeguards

4.2.1 No Net Harm

There were no negative socio-economic and environmental impacts of the project identified in the project region. During site visit, the verification team observed that people were receptive to these activities. Local people were aware regarding project activity and SDG benefits. Overall, the VVB on the basis of supporting documents and site visit and interviews with local stakeholders and PP concluded that there is no negative impact of project activities on the environment and the communities. The VVB finds that it will continue to provide positive environmental, social, and biodiversity benefits and hence is in accordance with section 3.16.1 of the VCS Standard v4.5.

As stated in section 2.1 of the MR & 2.1 of the validated PD, and as per the interviews & observation made during the site visit by the verification team, the project has positive impacts on the climate, community and biodiversity of the project area.

4.2.2 Local Stakeholder Consultation

PP has described the process of local stakeholder consultation in details in section 2.2 of MR.

It was concluded during the interviews conducted as apart of site visit that the village people and local stakeholders are aware about project implementation status and its benefits and impacts. Adequate levels of consultations were carried on during the project development and implementation process and requirements from local stakeholders are being considered in each stage. Sufficient levels of information are reaching stakeholders. Stakeholders seem to be enthusiastic about the project and extended their support in the current monitoring period. The comments raised during the consultations were addressed by the PP.

Detailed process followed for communicating the project stages and verifications were discussed during remote site visit. Hence, concluded that the project carried out effective community consultation and the project adhere to section 3.16.2, 3.16.3, and 3.16.4 of the VCS Standard v4.5. Ongoing mechanisms of communication with stakeholders were also discussed and it is confirmed that PP has taken due account of all and any input from local stakeholders.

4.3 AFOLU-Specific Safeguards

PP has addressed the subject of potential risk to local stakeholders due to project implementation, and the necessary mitigation measures in section 2.3 of the monitoring report. It is clearly indicated in the monitoring report that PP has taken prior consent of local stakeholders and government to implement the project activity in the project region. There were no risks identified and therefore no mitigation measures are required to be placed due to project implementation.

Since, the project does not negatively impact the local stakeholder and involves plantation and restoration activities in the mangrove forest areas, there is no risk to land use rights of the local stakeholders. The procedures of communication and consultation with local stakeholders during the monitoring period were also discussed in remote site visit interviews and discussed in above section of this report.

In the section 2.3 of the MR, PP has provided the complete details to clearly depict the communication and local stakeholder consultation channel. It was confirmed that the channel is appropriate for the medium of communication and gender related sensitive aspects. Furthermore, this has been observed and verified at the time of remote site visit. VVB verified that there is established communication and grievance addressal mechanism sufficient to project implementation to the locals. Locals interviewed during remote site visit also confirmed that they are well aware about project implementation, its outcomes and benefits. Furthermore, it has also been verified that there is no form of discrimination or sexual harassment involved in this project and none of the entity or PP is involved in such cases. The revisions made in the MR was found sufficient, complete and in compliance with the VCS Standard section 3.17.14, 3.17.18 and 3.17.19.

It was also confirmed through reviewing project documentation and remote site visit interviews that the implementation of the project does not impose any kind of risk to local stakeholders. In addition, the risks, costs and benefits of the project are communicated at each annual review meeting to locals. This provided the assurance that PP has sufficient means to communicate and report the risks and mitigation measures.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The data and parameters used to calculate the GHG emission reductions and removals were assessed as follows:

Parameters available at validation

Data/ Parameter	Unit	Means of verification	Appropriateness of the values used in the MR
CF_{TREE}	t C (t d.m.)$^{-1}$	The parameter represents the carbon fraction of tree biomass; and the description, source of data is correctly mentioned the MR	The value of the parameter is 0.47 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet.
C_{BSL_fallow}	t C/ha^{-1}	The parameter represents Carbon stock in pre-project biomass per stratum	The value of the parameter is 12.5 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. Thes source of the value (Spatial assessment of carbon stocks of living vegetation at the national level in Lao PDR. Geografisk Tidsskrift-Danish Journal of Geography, 111(1), 11-26) is correctly applied.
$C_{BSL\_upland\ rice}$	t C/ha^{-1}	The parameter represents Carbon stock in pre-project biomass per stratum	The value of the parameter is 5 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The source of the value is IPCC 2006 GPG.

BEF	-	The parameter represents Biomass expansion factor, expressing the additional biomass of a tree when only stem volume is known.	The value of the parameter is 2 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The source of the value is IPCC 2006 GPG.
$R_{TREE\_project}$	-	The parameter represents Mean of Root : Shoot ratio	The value of the parameter is 0.36 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The source of the value is ISLAM, M. A., RAHMAN, R., & HOSSAIN, M. K. (2019). Effect of container and potting media on raising quality seedlings of Acacia auriculiformis in the nursery. Asian Journal of Agriculture, 3(01).
Wood density Eucalyptus camaldulensis	t dm./m^3	Weight to volume relation of three Eucalyptus clones: E. pellita x E. urophylla, E. pellita x E. brassiana and E. pellita x E. camaldulensis	The value of the parameter is 0.51 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The value is calculated for each species.
Wood density Acacia auriculiformis	t dm./m^3	Weight to volume relation of Acacia auriculiformis	The value of the parameter is 0.51 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The value is calculated for the species.
$SOC_{REF,i}$	t C ha^{-1}	Reference SOC stock corresponding to the reference condition in native lands	The value of the parameter is 47 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The value is sourced from IPCC.

$f_{LU,\ i}$	-	Relative stock change factor for baseline land-use in stratum I of the areas of land	The value of the parameter is 0.82 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The value is sourced from IPCC.
$f_{MG,i}$	-	Relative stock change factor for baseline management regime in stratum I of the areas of land	The value of the parameter is 1.15 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The value is sourced from IPCC.
$f_{I,i}$	-	Relative stock change factor for baseline input regime (e.g. crop residue returns, manure) in stratum I of the areas of land.	The value of the parameter is 0.92 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The value is sourced from IPCC.
$SOC_{0,i}$	-	SOC stock at project beginning, based on FLU, FMG and FI input parameters.	The value of the parameter is 40.78 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The value is sourced from IPCC.
$SOC_{0,i}$ - SOC_{Ref}	-	SOC stock accountable by the project.	The value of the parameter is 6.22 and considered in line with the applied methodology AR-AM0014. The verification team confirmed that the value of the parameter is consistently applied in the ER sheet. The value is sourced from IPCC.
$v_{TREE,j}\ (BA_{p,i})$	-	Stem volume per hectare of trees of species j in sample plot p of stratum i estimated by using the basal area of the plot as entry data into a volume table or volume equation; m3 ha-1	The source of the value is Allometric equations developed by Simosol on the basis of growth parameters in Burapha which has been checked from the inventory excel sheet.

Parameters monitored

<table>
<tr><th>Data/ Parameter</th><th>Unit</th><th>Means of verification</th><th>Appropriateness of the values used in the MR</th></tr>
<tr><td>Ai</td><td>ha</td><td>Area of tree biomass stratum i</td><td>The value of the parameter is correctly calculated and applied in the ER sheet.
<table><tr><td>Stratum (Plantation year)</td><td>Area1</td></tr><tr><td>2016</td><td>947</td></tr><tr><td>2017</td><td>601</td></tr><tr><td>2018</td><td>369</td></tr><tr><td>2019</td><td>158</td></tr><tr><td>2020</td><td>701</td></tr><tr><td>Total</td><td>2774</td></tr></table></td></tr>
<tr><td>wi</td><td>-</td><td>Relative weight of the area of stratum I, the area of the stratum i divided by the project area.</td><td>The value of the parameter is correctly calculated and applied in the ER sheet. The stratum details are provided in MR section 4.2 and has been checked in the ERR sheet also.
<table><tr><th>Stratum</th><th>Wi</th></tr><tr><td>EUC-2016</td><td>0.33</td></tr><tr><td>EUC-2017</td><td>0.19</td></tr><tr><td>EUC-2018</td><td>0.12</td></tr><tr><td>EUC-2019</td><td>0.06</td></tr><tr><td>EUC-2020</td><td>0.25</td></tr><tr><td>AC-2016</td><td>0.01</td></tr><tr><td>AC-2017</td><td>0.03</td></tr><tr><td>AC-2018</td><td>0.02</td></tr><tr><td>TOTAL</td><td>1.00</td></tr></table></td></tr>
</table>

s_i	t d.m. (or t d.m. ha^{-1})	Estimated standard deviation of biomass stock in stratum i	The value of the parameter is correctly calculated in project monitoring system and applied in the ER sheet.
DBH	Cm	The diameter at breast height is the diameter of a tree stem.	The value of the parameter is correctly calculated in inventory and applied in the ER sheet.
Tree height	m	The height of a tree.	The value of the parameter is correctly calculated in inventory and applied in the ER sheet.
Permanent Sample plot Area	m^2	The permanent sample plot is the spatial unit of a forest inventory. It is used to expand the measured wood volume to a hectare	The value of the parameter is correctly calculated in inventory and applied in the ER sheet.
Tree species	-	The tree species is used to define the stratum of trees to be counted in.	The value of the parameter is correctly calculated in inventory and applied in the ER sheet.
Area of intercropping	Hectares (ha)	Area of crops planted within the plantation area by villagers taking up intercropping in the first and/or second year of the plantation rotation.	This parameter accounts potential leakage in the project and has been added through the project deviations as assessed in section 3.3 of the verification report. The parameter value will be sourced from GIS analysis, and to be reported on establishment of new plantation areas.
Year of intercropping	Year	The year crops planted within the plantation area by villagers taking up intercropping.	This parameter accounts potential leakage in the project and has been added through the project deviations as assessed in section 3.3 of the verification report. The parameter value will be sourced from GIS analysis, and to be reported on establishment of new plantation areas.

Type of crops	-	The type of crops planted within the plantation area by villagers taking up intercropping in the first and/or second year of the plantation rotation	This parameter accounts potential leakage in the project and has been added through the project deviations as assessed in section 3.3 of the verification report. The parameter value will be sourced from GIS analysis, and to be reported on establishment of new plantation areas.

The verification team checked the source of the parameters in line with the applied methodology and it was found that PP has correctly applied values of the parameters in the emission reductions calculation sheet.

The monitoring activities in this verification period were performed in line with the monitoring plan of validated PD. PP has been collecting and storing all field data electronically and all the evidence submitted by PP was checked by the verification team. Geocoordinates of project location were also checked and was found correctly recorded by PP's monitoring team. During site visit, interviews with field monitoring staff were conducted to confirm the data collection procedures, project boundary demarcation, training and field monitoring activities. The responses provided by field monitoring staff was complete, sufficient and in line with monitoring plan of the project. They have been provided training on forest management and other field activities. The roles and responsibilities within PP's team is clearly distributed and given in section 4.3 of the monitoring report. All the data collection and analysis procedures including sampling approach followed by PP is transparently presented in monitoring report and was confirmed during site visit.

VVB has checked all the calculation sheets submitted for ERRs. Starting with, field measurement records of tree growth on a yearly basis have been recorded by PP. The field measurement records for the current monitoring period have been provided by PP. The data transferring from the hard copies to excel sheet was also found to be done completely accurate and no errors in data transfer was found. The raw data summary provided by PP consists of details of plot (including name of the data collector, date of data collection, name of person checking QA/QC, its designation and date of QA/QC completed.This data provided in for each plot in the excel sheet provided sufficient confidence in the data collection procedures implemented by PP. It was found that data management and following monitoring plan adopted by PP is as per the applied methodology and registered PD. Going forward with the analysis, it was found that PP has identified and numbered the plant on site the same numbering of plant species has been utilised to report the consistent information in all the documents. VVB confirmed the data collection, reporting and analysing procedures in the interviews of PP and other stakeholder conducted during site visit. The data from this sheet is used in the excel sheet that consists of the calculations of monitoring data with year wise plantation records for this monitoring period.

The input values in calculation sheet have been clearly provided to review the calculations. The equation used for the calculation of biomass have also been provided in the same worksheets. Additionally, the equation derived from the methodology for each step have been appropriately used in the worksheets too. While assessing the ERRs, these information and cell linking were checked and found to be correct in all the excel sheets provided for each year considered in this monitoring period.

VVB confirms that the total VCUs calculated in the final sheet has been done step wise following the appropriate equations derived from the methodology and the cell linkages have been well established within the excel sheet and between excel sheets. After making reproducible and consistent in all ERR calculation excel sheets and rounding two digits after decimal point as standards in the ERR sheets, only insignificant numbers after decimal points changes occurred, and final VCUs generated and eligible for issuance remain unchanged.

Year of inclusion in project area	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e) (2020)	Project emissions or removals (tCO_2e) (2021)	Project emissions or removals (tCO_2e) (2022)	Leakage emissions (tCO_2e) (2020)	Leakage emissions (tCO_2e) (2021)	Leakage emissions (tCO_2e) (2022)	Net GHG emission reductions or removals (tCO_2e) (2020)	Net GHG emission reductions or removals (tCO_2e) (2021)	Net GHG emission reductions or removals (tCO_2e) (2022)	Buffer pool allocation (2020)	Buffer pool allocation (2021)	Buffer pool allocation (2022)	VCUs eligible for Issuance (2020)	VCUs eligible for Issuance (2021)	VCUs eligible for Issuance (2022)
2016	0	18,521	18,521	18,521	-	-	-	18,521	18,521	18,521	1,852	1,852	1,852	0	0	0
2017	0	21,017	21,017	21,017	-	-	-	21,017	21,017	21,017	2,102	2,102	2,102	18,915	18,915	18,915
2018	0	8,368	8,368	8,368	-	-	-	8,368	8,368	8,368	837	837	837	7,532	7,532	7,532
2019	0	3,227	3,227	3,227	-	-	-	3,227	3,227	3,227	323	323	323	2,904	2,904	2,904
2020	0	1,028	5,750	5,750	-	-	-	1,028	5,750	5,750	103	575	575	925	5,175	5,175
2021	0	4,070	4,070	4,070	-	-	-	4,070	4,070	4,070	407	407	407	3,663	3,663	3,663
2022	0	4,070	4,070	4,070	-	-	-	4,070	4,070	4,070	407	407	407	3,663	3,663	3,663
Total	0	60,300	65,022	65,022	-	-	-	60,300	65,022	65,022	6,030	6,502	6,502	**54,270**	**58,520**	**58,520**

It was checked and found that PP has provided sufficient information in the section 5.2 and 5.4 of the MR and the calculations done following the description given in MR and in the ERR sheet confirmed that the calculations are reproducible and was found to be accurate and sufficient.

The methods and formulae used for quantification of GHG emission reductions and removals have been assessed and it was found that the equations used for the calculation of net emission reductions were applied correctly. The equations and values applied in each parameter have been given consistently in MR and ER sheet for quantification of baseline emission, project emissions, leakage, and uncertainty.

LTA calculations as per the vintages.

harvesting year	Carbon stored (PE)	Baseline emissions (BE)	PE - BE (LTA Calculation)	PE-BE (LTA Calculation, adjusted for achieved CDR)	CDR	Cumulative CDR
	(tCO2)	(tCO2)	(tCO2)	(tCO2)	(tCO2)	
2016	48,734	-36,823	11,912	0	0	0
2017	128,385	-23,359	105,025	23,806	23,806	23,806
2018	227,017	-14,342	212,675	41,777	41,777	65,582
2019	333,763	-6,131	327,633	51,281	51,281	116,863
2020	476,600	-27,269	449,331	117,791	117,791	234,655
2021	619,436	0	619,436	65,022	65,022	299,677
2022	762,272	0	762,272	65,022	65,022	364,699
2023	563,967	0	563,967	563,967	122,149	486,847
2024	490,392	0	490,392	490,392	0	486,847
2025	500,354	0	500,354	500,354	0	486,847
2026	700,986	0	700,986	700,986	0	486,847
2027	640,232	0	640,232	640,232	0	486,847
2028	832,109	0	832,109	832,109	0	486,847
2029	1,023,985	0	1,023,985	1,023,985	0	486,847
2030	757,596	0	757,596	757,596	0	486,847

2031	658,760	0	658,760	658,760	0	486,847
2032	672,142	0	672,142	672,142	0	486,847
2033	851,137	0	851,137	851,137	0	486,847
2034	730,786	0	730,786	730,786	0	486,847
2035	949,802	0	949,802	949,802	0	486,847
				LTA		
			Average:	486,847		

Net GHG Emission reductions and removals by Vintage Year

Vintage Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e) (2020)	Net GHG emission reductions or removals (tCO_2e)	Buffer pool allocation	VCUs eligible for Issuance
2020	27,269	60,300	-	33,031	3,303	29,728
2021	0	65,022	-	65,022	6,502	58,520
2022	0	65,022	-	65,022	6,502	58,520
Total	**0**	**190,344**	**0**	**163,075**	**16,308**	**146,768**

In conclusion, VVB reviewed all the evidence submitted by PP related to GHG emission reduction calculations and confirmed that all the parameters are correctly applied. The emission reduction calculation has been done in line with the applied methodology. The project is in complete compliance with the monitoring plan described of registered PD. All the values are provided in the MR and ER calculation sheet are cross verified with its sources and confirmed no manual transposition errors between data sets have occurred. Also, the consistency of values within MR was checked and found to be okay. The assessment team has reviewed the project's assessment of leakage as presented in Section 8 of the Monitoring Report (MR). The evaluation appropriately justifies the application of a zero-leakage assumption for this monitoring period. Additionally, Section 5.4 of the MR outlines the methodology for calculating potential leakage, ensuring transparency and methodological rigor. The project does not assume that leakage will remain zero throughout the crediting period, and ongoing assessments will be conducted as part of continuous subsequent monitoring.

The justification provided in Section 8.1 of the MR adequately demonstrates that the project is unlikely to cause leakage due to the displacement of grazing activities. The project design allows for cattle grazing from the third year of the rotation cycle until harvest, mitigating potential displacement impacts in the initial years. Findings from the 2019 Village Benefits Assessment indicate that cattle grazing on plantation land is limited due to the distance from village centers and the necessity of penning livestock near homes to prevent theft. Additionally, land converted into plantations was not used for grazing in the pre-project scenario, further reducing potential leakage risks. In cases where grazing may have previously occurred in the project area, displacement has been determined to be minimal during the first two years of the cycle. This approach aligns with the requirements of AR-TOOL 14 and was found to be appropriate by the assessment team.

The project's agroforestry model is designed to mitigate leakage risk by enabling intercropping during the first one to two years of plantation establishment. The rotation cycle follows traditional shifting cultivation practices, ensuring that land is reused after each harvest. By allowing intercropping, the project ensures that villagers can continue agricultural activities within the project area, minimizing displacement-related leakage. Empirical evidence provided in the Village Benefits Assessment and Environmental and Social Impact Assessment (ESIA)/26/ supports this conclusion. The assessments indicate that intercropping has been successfully implemented across 23 villages with plantations (totaling 2,928 ha), with approximately 1,829 ha actively intercropped. Households participating in intercropping cultivate a diverse range of crops, including rice, Job's Tears, peppers, corn, cassava, and sesame, many of which serve as cash crops.

Intercropping uptake has been systematically monitored through Village Benefits Assessments, socioeconomic and livelihood studies, and Burapha's GIS system. These monitoring mechanisms provide consistent evidence that agricultural displacement-related leakage has not occurred.

VVB has verified that the PP has provided the updated LTA in an ERR calculation spreadsheet for the calculation of the LTA GHG benefit in 07022025 Updated LTA for MR2 v3.xlsx. A table showing the updated LTA has been included in Section 5.5 of the MR. The calculation of the LTA can be found in "Updated LTA for MR2, 2022-03-31_Ex Ante - 1st project instances.xlsx".

The Long-Term Average (LTA) was calculated as the total removals during the crediting period divided by the crediting length (20 years), using an updated MAI of 18. This MAI represents the estate-wide average across eucalyptus and acacia plantations.

The long-term average GHG benefit was determined using the following equation:

LA=PEt−BEtLA = PEt - BEtLA=PEt−BEt

Where:

LA = Long-term average GHG benefit (tCO_2e).

PEt = Total to-date GHG emission reductions and removals generated in the project scenario (tCO_2e), incorporating project emissions of CO_2, N_2O, CH_4, and leakage.

BEt = Total to-date GHG emission reductions and removals projected for the baseline scenario (tCO_2e).

This provides the complete quantification approach for the current monitoring period. The calculation of the LTA follows the methodology outlined in Sections 3.2.28 and 3.2.30 of VCS Standard 4.7 and aligns with the AFOLU Guidance. Therefore, the verification team conclude that the GHG emission reductions and removals have been quantified correctly in accordance with the project description and applied methodology.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The GHG emissions and removals of the project are analysed on the basis of field monitoring forest inventory measurements and calculation procedures and satellite image analysis. All these documents have been evaluated by the verification team, as described in Section 4.4 of this report. The verification team interviewed the PP's team and confirmed their roles, responsibilities and expertise. Through the assessment of field monitoring data, and other evidence as listed in appendix IV GHG emission reductions were found to conform to the project design and monitoring plan which ensured a high degree of data reliability and also that adequate monitoring mechanisms are in place where the required parameters need to be monitored. The evidence provided to determine emission reductions reported in the Monitoring Report included values, description, units, QA/QC procedures and sources. This evidence has been cross-checked with the project's emission reduction calculation spreadsheets. The procedure for data recording, transfer and final reordering was also verified and found to be in compliance with the monitoring plan outlined in the validated PD.

The verification team confirms that the calculation and data is authentic. The quality of supporting documents submitted for verification is adequate. The assessment team confirms that the proper evidence is available for the whole monitoring period and the same is verifiable and the data collection system meets the requirement of the monitoring plan and the applied methodology according to the assessment carried out. The measuring instruments used by PP for the monitoring is calibrated.

The verification team confirms the quality of evidence to determine the GHG reductions are satisfactory and the detailed information regarding the roles and responsibilities have been provided in the MR.

4.6 Non-Permanence Risk Analysis

The non-permanence risk analysis has been performed in line with the VCS standard and VCS AFOLU Non-permanence risk tool. Each risk category was calculated following VCS guidance, and the information was cross-checked and verified through document review, onsite visits of the project area and interviews conducted. VVB has assessed the project non-permanence risk report version 3.1, dated 13-December-2024 and confirmed the correct reporting of risk. Details of the assessment are provided as follows:

Risks	Assessment of the risk factor justification	Risk rating
Internal risks		
Project management (PM)	The verification team completed the project risk analysis in line with AFOLU Non permanence risk tool. As per section 2.2.1 of tool /24/ and table 1, Burapha plants mainly Eucalyptus clones and Acacia. 87% of all areas are planted with Eucalyptus, another 5% are planted in mixture with Acacia and only 6% are planted solely with Acacia	Risk rating: 0 (as the total may not be less than 0).

	There is no encroachment by outside actors in the project area in this monitoring period. Therefore, the risk factor is 0. Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting under the VCS Program or other approved GHG programs. Risks related to management team have been rated -2. VVB has confirmed this information through project document review and interviews with PP and therefore found this risk rating appropriate and correctly applied. This revision has made the total PM score (-2) which has been consistently given in the NPR report, excel sheet.	
Financial viability (FV)	The applicable financial viability risk categories are d), and h). The project cash flow breakeven point breakeven point is less than 4 years from the current risk assessment and therefore the risk has been rated 0. The overall risk rating is 0 and has been consistently given in the NPR report, excel sheet.	Risk rating: 0
Opportunity costs (OC)	The risk rating of opportunity cost (a-f) and the calculations of total score follows the equation, [(a, b, c, d, e or f) + (g + h or i)]. The mitigation factor (I) is scored 0. The overall risk rating is (-24) and has been consistently given in the NPR report, excel sheet.	Risk rating: -4, but 0 (as the total may not be less than 0).
Project longevity (PL)	The project longevity is assessed by identifying whether the project has legal agreement or requirement to continue the management practices. The project longevity is expected to be 50 years. No legal binding agreement exists, however land lease and concession agreements are issued over this period of time.	= 24 – (project longevity/ 5) Since, the total PL may not be less than zero, Risk rating: 14
Internal risk rating	PM + FV + OC + PL	Internal risk score = 6
External risks		
Land Tenure and Resource Access/ Impacts (LT)	Land tenure risks are justified by PP in the updated NPR. Therefore, there is no risk associated with ownership and resource access/ use rights. However, since the ownership and resource access/use rights are held by different entity(s), the risk is rated 2. The mitigation action is in place for the factor (g) - Where disputes over land tenure, ownership or access/use rights exist, documented evidence is provided that projects have implemented activities to resolve the disputes or clarify overlapping claims which scores (-2)	Risk rating: 0

Community engagement (CE)	A score of -5 is given as the mitigation measure of project generates net positive impacts on the social and economic well-being of the local communities who derive livelihoods from the project area is followed.	Risk rating: -5 (as the total may be less than zero)
Political risk (PC)	PP has calculated governance score from the mean of Governance Scores across the six indicators of the World Bank Institute's Worldwide Governance Indicators (WGI). The political risk can therefore be classified as (a) Governance score of less than -0.79. Risk is rated 4 Mitigation action is scored -2 as the country is implementing REDD+ Readiness or other activities.	Risk rating: 2
External risk	LT + CE + PC	External risk score = 0 (as the total many not be less than 0).
Natural risks		
Fire (F);	Incidences of wildfire in the project is transient as the project predominately plants Eucalypts hybrids which provides a better option for fire prevention, as well the Acacia /43/ is extremely resilience to high severity wildfire. Fire incidence is classified as a transient risk, occurring less than every 10 years. Given that eucalyptus plantations have a rotation period of seven years, any losses due to fire can be fully recovered within 10 years. Therefore, the significance score for fire is assigned a value of 2. As confirmed by the Plantation Fire Management Plan /44/ the project has implemented a comprehensive fire prevention strategy aimed at minimizing fire risk and mitigating potential impacts within the project area. Key measures include the construction and maintenance of 15-meter-wide firebreaks strategically placed around plantations, roads, trails, and plot boundaries. These firebreaks are regularly cleared to prevent fire spread. Additionally, fuel load management practices, such as the removal of dry biomass and proper handling of harvest residues, help reduce ignition sources. Community engagement plays a vital role, with fire awareness campaigns and training provided to both staff and local community members on fire risks and firefighting techniques. Surveillance and monitoring efforts involve regular patrols and firewatch towers for early fire detection, ensuring a rapid response. Firefighting resources, including basic firefighting tools and water tanks, are available, with coordination established with local fire brigades for emergency situations. Seasonal risk	Risk rating: 2*0.25= 0.50

	planning further strengthens preparedness, with activities adjusted according to fire-prone periods and readiness drills conducted. Community involvement enhances social resilience, while early detection and coordination improve response capabilities. The overall assessment indicates that these measures are proactive, well-structured, and effective in reducing fire risk. Hence the mitigation measures are rated at 0.25	
Pest and Disease outbreaks (PD)	The risk of pest and disease outbreaks due to the monoculture of Eucalyptus and Acacia is likely to occur frequently, indicating an occurrence probability of less than once every 10 years. As a result, the significance score has been assessed as 2. However, the risk assessment report highlights that pest and disease outbreaks are preventable through proper management measures and regular monitoring of the project area, which includes dedicated pest surveillance. The implemented strategy integrates biological, chemical, and mechanical controls, ensuring a proactive approach to pest management. Early detection through field surveys, traps, and remote sensing minimizes both economic losses and excessive pesticide use. Additionally, the strategy incorporates tree improvement programs that utilize genetically enhanced material with increased resistance to pests and diseases. Burapha has conducted both internal and external monitoring /46//48/of its plantations for pests and diseases, with all observations systematically recorded in a database. The collected data includes stand health assessments, post-establishment monitoring, and evaluations of failed plantations. Each dataset documents the type of pests and diseases identified, with verification provided through field reports approved by NAFRI. Given these comprehensive monitoring and mitigation measures, a mitigation score of 0.5 has been applied.	Risk Rating: 2*0.50= 1.00
Extreme Weather (W)	There are no chances of extreme weather that would affect carbon stocks. PP has sufficiently provided the literature review and supported the risk category factors. The justification in the NPR report for the historical and expected occurrence (significance vs. Likelihood/frequency).	Risk rating: 2* 0.25= 0.50
Geological risk (G)	Laos is not prone to major earthquakes, tsunamis, volcanic activity or other geological risks.	Risk rating: 0

Other natural risk (ON)	Through site visit inspection and interview /63/ with PP it was confirmed that chances of occurrence of other risks are not applicable	Risk rating: 0
Natural risks	F + PD + W + G + ON	Score is 1.75
Overall risk rating	Internal risk + external risk + natural risk	6 + 0 + 2 = 8 Overall risk rating is 10 as per the NPR tool

The calculation has been checked as per the VCS tool applied for the non-permanence risk calculation and it is concluded to be appropriate with buffer credit 8%. The AFOLU Non-Permanence Risk Tool requires a minimum risk rating of 10%. The calculation of total tradable VCUs is done by multiplying the risk factor with the calculated net emission reductions as per the excel calculation sheets. The verification team concludes each risk has been correctly scored and supported by sufficient justification and evidence in the AFOLU Non-permanence risk report submitted by PP.

5 VERIFICATION OPINION

Earthood has been contracted by Burapha Agro-Forestry Co. Ltd to conduct the second verification of the project activity titled "Afforestation in Eucalyptus and Acacia plantations for Burapha Agroforestry Co., Ltd" (VCS ID: 2367). PP is responsible for the information about the implementation of the project activity.

Earthood completed the verification assessment of the final version of MR, emission reductions calculation sheets, project documents, and evidence provided by PP in line with the requirements set in based on the applied methodology AR-ACM0003, version 2.0. and its associated tools, VCS standard and VVB manual.

Earthood's verification approach is based on the understanding of the risks associated with reporting the project activity, estimates of GHG emission data and the controls to be implemented to mitigate these. Earthood planned and performed the verification by obtaining evidence, remote site visit, other information, and explanations that Earthood considered necessary to give reasonable assurance that the estimated GHG emission reductions are fairly achieved.

The achieved ERRs are 163,075 tCO_2e and estimates ERRs were 220,566 tCO_2e. The difference in the ERRs are 26.1% and the achieved ERRs are less than estimated ERRs which is because of the exclusion of area in Xayabouly from the total project area. VVB found the justification appropriate as the current monitoring period does not account Xayabouly area in the quantification which has been checked and confirmed from KML file, ERRs spreadsheet, datasets. The ERR calculation are conservation and the difference in achieved and estimates ERRs are justified.

The verification team confirms that:

- the project activity is in accordance with all relevant host country criteria (Lao PDR) and VCS rules and requirements of the monitoring and implementation plan of the project activity is in accordance with all conditions of the latest version of applied methodology
- the local stakeholders' consultation has been performed in accordance with host country and VCS requirements.
- the environmental assessment is appropriate and sufficient.

- the monitoring plan is transparent and adequate.
- all information has been consistently applied in the VCS MR.
- the implementation of the project has been done as per description in the VCS MR.

Quantity of GHG emission reductions or removals in tCO_2 equivalent achieved by the project during the verification period is as follows:

Verification period: From 23-December-2020 to 31-December-2022

Vintage Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e) (2020)	Net GHG emission reductions or removals (tCO_2e)	Buffer pool allocation	VCUs eligible for Issuance
2020	27,269	60,300	-	33,031	3,303	29,728
2021	0	65,022	-	65,022	6,502	58,520
2022	0	65,022	-	65,022	6,502	58,520
Total	**0**	**190,344**	**0**	**163,075**	**16,308**	**146,768**

Approved by

Dr. Kaviraj Singh

CEO

Earthood Services Limited

Date: 04/04/2025

Place: Gurgaon, Haryana

APPENDIX I: ABBREVIATIONS

Abbreviations	Full texts
AFOLU	Agriculture, Forestry and Other Land Use
ARR	Afforestation, Reforestation and Revegetation
BE	Baseline Emission
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CO_2	Carbon di oxide
CP	Crediting Period
DR	Desk Review
EI	External Individual
ER	Emission Reductions
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Green House Gas
GPS	Global Positioning System
Ha	Hectares
KML	Keyhole Markup Language (file format)
MR	Monitoring Report
MoU	Memorandum of Understanding
PAI	Project Activity Instances
PD	Project Description
PP	Project Proponent
PPE	Personal Protective Equipment
RS	Remote Sensing
SDG	Sustainable Development Goals
SOP	Standard Operating Protocol
SOC	Soil Organic Carbon
tCO_2e	tonnes (t) of carbon dioxide (CO2) equivalent (e)
UNFCCC	United Nations Framework Convention on Climate Change
V	Version
VCS	Verified Carbon Standard
VCUs	Verified Carbon Units
VER	Verified Emission Reduction
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

APPENDIX II: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIWER

Competence Statement			
Name	Karamjot Kour		
Education	M.Sc (Soil Science and Agricultural Chemistry) B.Sc (Agriculture)		
Experience	1+ Years		
Field	Agriculture		
Approved Roles			
Team Leader	YES (VM)		
Validator	YES (VM)		
Verifier	YES (VM)		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	NO		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	17/02/2025
Approved by	Deepika Mahala (Technical Manager)	**Date**	17/02/2025

Competence Statement	
Name	Riya Sharma

Education	M.Sc. Biodiversity & Conservation		
Experience	1+ years		
Field	Climate Change & Environment, Forestry		
Approved Roles			
Team Leader	Yes (VM)		
Validator	Yes (VM)		
Verifier	Yes (VM)		
Local expert	Yes (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Reviewed by	Shifali Guleria, Quality Manager	**Date**	29/11/2022
Approved by	Deepika Mahala, Technical Manager	**Date**	29/11/2022

Name	Deepak Prajapat		
Education	M.Sc. Forestry B.Sc. Botany(hons.)		
Experience	-		
Field	-		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	YES		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	30/08/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	30/08/2024

Competence Statement	
Name	Dr. Rajesh Monga
Education	PhD: Forestry

	M.Sc.: Forestry B.Sc.: Agriculture		
Experience	6+ Years		
Field	Climate Change		
Approved Roles			
Team Leader	NO		
Validator	YES		
Verifier	YES		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
add rows, if necessary			
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	12/11/2024
Approved by	Deepika Mahala (Technical Manager)	**Date**	12/11/2024

Competence Statement	
Name	Bounthan SOUKSAVATH.
Education	Diploma in English
Experience	12+ years
Field	Forestry
Approved Roles	
Team Leader	NO
Validator	NO
Verifier	NO
Methodology Expert	NO
Local expert	YES (Laos)

Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	24/04/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	24/04/2023

Competence Statement			
Name	Ashok Gautam		
Country	India		
Education	M. Sc. (Environmental Sciences) M. Tech. (Energy & Environmental Management)		
Experience	16 Years +		
Field	Energy, Climate Change & Environment		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-I.A., AMS-I.C., AMS-I.E, AMS-II.D., AMS-II.G., AMS-III.E., AMS-III.H., AMS-III.Q, AMS-III.Z., AMS-III.AV., AMS III.AR, AM0029, AM0025, AM0056, ACM0001, ACM0002, ACM0004, ACM0012, ACM0006, AM0018, ACM0017, ACM0009, AM0034, AMS.I.B, ACM0016, AMS-III.BL, AMS-II.L, AMS-I.I., AMS-III.A.O., ACM0010, ACM0025		
Local expert	YES (India)		
Financial Expert	YES		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, TA 3.1, TA 13.1)		
Reviewed by	Shifali Guleria	**Date**	06/03/2023
Approved by	Deepika Mahala	**Date**	06/03/2023

Competence Statement	
Name	Nepolion Borah
Education	M.Sc. in Ecology & Environmental Science, Ph.D. in Forest Ecology
Experience	15 Years +
Field	Forest Ecology and Climate Change
Approved Roles	

Team Leader	YES		
Validator	YES		
Verifier	YES		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 14.1)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	07/02/2025
Approved by	Deepika Mahala (Technical Manager)	**Date**	07/02/2025

APPENDIX III: LIST OF DOCUMENTS REFERRED

Ref no.	Author	Title	Reference to the document	Provider
1	PP	VCS Monitoring Report (VCS MR)	Version 2.2 dated 25/11/2024	PP
2	VCS	VCS MR template	Version 4.2	Others
3	VCS	VCS Program Guide	Version 4.4	Others
4	VCS	VCS Standard	Version 4.5	Others
5	VCS	VCS Validation and Verification Manual	Version 3.2	Others
6	VCS	VCS Program Definitions	Version 4.4	Others
7	UNFCCC	AR-ACM0003 “AR Large scale - Afforestation and reforestation of lands except wetlands”, version 2	Version 2.0	Others
8	UNFCCC	Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities	Version 4.2	Others
9	UNFCCC	Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities	Version 3.1	Others
10	UNFCCC	Estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity	Version 4.0	Others

11	UNFCCC	Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity	Version 2.0	Others
12	UNFCCC	CDM Standard: Sampling and surveys for CDM project activities and programmes of activities	Version 9.0	Others
13	UNFCCC	CDM Guideline: Sampling and surveys for CDM project activities and programmes of activities	Version 4.0	Others
14	VERRA	VCS Project webpage https://registry.verra.org/app/projectDetail/VCS/2367	Last accessed on 29/02/2024	Others
15	VERRA	2367 PDMR	Version 7.7 dated 08/12/2022	Others
16	VERRA	2367 Joint Validation and Verification Report	Version 1.3 dated 02/03/2023	Others
17	PP	Non permanence risk report	Version 4.1, dated 01/04/2025	PP
18	PP	VCS Risk Report Calculation tool excel sheet	-	PP
19	PP	AFOLU Non permanence risk tool	Version 4.0	PP
20	PP	ERR calculation sheet	-	PP
21	PP	Start date evidence (31/05/2016)	-	PP
22	PP	Copy of Village cooperation agreement	-	PP
23	PP	Undertaking or the declaration that the project has not and is not seeking registration under another GHG program, project has not been rejected by any other GHG program, the project does not reduce emissions in another emission trading program, the project is not being used to create other environmental credits.	-	PP
24	PP	Undertaking or the declaration that the project is not part of jurisdictional REDD+ program	--	PP
25	PP	Copy of Burapha has a Letter of Acknowledgement from the GOL	-	PP
26	PP	ESIA report	-	PP
27	PP	ESMMP report	-	PP
28	PP	Records of SMA Biodiversity Assessments	-	PP
29	PP	Training records 2021, 2022, 2023	-	PP
30	PP	Soil testing reports	-	PP
31	PP	Local stakeholder consultation records	--	PP

32	PP	Grievance management and dispute resolution records	-	PP
33	PP	Supportive of Grievance Management and Dispute Resolution SOP	-	PP
34	PP	Land Acquisition Manual (LAM) - LAM Update	-	PP
35	PP	Records of Focus Group discussions	-	PP
36	PP	Copy of land lease agreement	-	PP
37	PP	The Land Use Limitations Register	-	PP
38	PP	Records of plantation reviews conducted by the third-party operators “Simosol” and “AFRY Management Consulting” (UK) Ltd.	-	PP
39	PP	KML files to check the project area	-	PP
40	PP	Records of training conducted by FMU manager	-	PP
41	PP	Copy of land lease agreement	-	PP
42		Lao PDR | Forest Carbon Partnership Facility		
43		Acacia shrubs respond positively to high severity wildfire: Implications for conservation and fuel hazard management - ScienceDirect		
44	PP	Plantation Fire Management, Preparedness and Response	Version 1.0 Dated 23.03.2022	PP
45	PP	Burapha Timber Plantation Research Strategy	Dated April 2023	PP
46	PP	Field Report (NAFRI)	8/03/2023	PP
47	PP	Burapha Timber Plantations Strategy Policies Protocols	-	PP
48	PP	Monitoring data 2024-08-20, Health indications tab	-	PP

APPENDIX IV: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS

Table 1. Remaining FAR from previous verification

FAR ID	01	**Section no.**		**Date :** 29/05/2023
Description of FAR				
PP shall respond to the following FAR raised during joint validation and 1st verification assessment. The leakage tool has been applied. Leakage is considered "0". Baseline scenario is described as shifting cultivation for upland rice production. This indicates that the land is required for livestock production. If the area is transferred into tree plantation the communities could look for other areas to grow rice, taking int account that intercropping is practiced only in the first year of plantation establishment. This could result in leakage attributable to the displacement of agricultural activities. During the onsite audit no indication of leakage was detected. Nevertheless, as the expansion of the plantation continues the probability of leakage increases. The PP is presently evaluating the possibilities of different monitoring parameters but there is no conclusion yet. Therefore, leakage monitoring should be part of the monitoring activities. Respective parameters should be developed and considered at next Therefore, leakage monitoring should be part of the monitoring activities. respective parameters developed and considered at next verification				
Project participant response				**Date :** 29/07/2023
Given the very high levels of anthropogenic pressures – wide spread and historic clearing in PFAs (and outside), Burapha's mosaic pattern of plantations establishment, the distance of plantations from native forests, and the fact that Burapha plan to establish 60,000 ha in 3 PFAs within a total area of 264,000 ha it is difficult to demonstrate any leakage is a direct consequence of Burapha plantation activities. A Village Benefits Assessment will be conducted in 2023 (contract now being signed) in which Burapha will ask directly to households: "Will you clear native forests due to less agricultural land available as a result of Burapha plantations". Results will be known by Q1 2024 and will include the identification of potential actions necessary to ensure that leakage is monitored effectively.				
Documentation provided by project participant				
Scope of Work - village benefits assessment #2 _CSER_v1				
VVB assessment				**Date:** 16/10/2023
The justification provided by the PP regarding leakage scenarios is checked, and it was found to be sufficient and considered project activity. Since, the results of the analysis will be checked in future, the FAR remains open and shall be addressed by next VVB. This finding is converted to FAR#06				

FAR ID	02	**Section no.**		**Date :** 29/05/2023
Description of FAR				

PP shall respond to the following FAR raised during joint validation and 1st verification assessment. As detected during the field inspection the harvesting activities are conducted by contractors using harvesters and not manually by the members of the local communities as described and planned in earlier descriptions/16/18/. This might result into a reduction of Job opportunities for the villagers/local communities and therefore in less income than expected. Furthermore, the intercropping practically takes only place in the first year after planting /16/17/18/19/. The original planning had foreseen intercropping during the first two years to “ensure that the plantations do not interrupt the traditional food production scheme of farmers and force them to practice shifting cultivation in new and forested areas” areas”/ 01/. At the present assessment there was no indication that's the change described causes any negative effect on the local communities. Nevertheless, no substantial information could be provided, whether these practices will have future negative effects on the wellbeing of the communities in terms of food supply or income generation and therefore requires further monitoring.
Project participant response **Date :** 29/07/2023

Section 1.11 of the Joint PD/MR states that "All work is conducted maximizing the labor input and reducing mechanical work, to guarantee employment for the villagers. However, harvesting activities are conducted mainly by harvesting machines."

While Burapha does continue to use manual harvesting techniques - drop, drag and transport – in inaccessible areas it carries a number of limitations and risks which include:

- *Large amounts of chainsaw work and felling related injuries, also elevated risks to people on the ground nearby;*
- *A lack of local labor sourcing required to do extremely physical work. There was a heavy dependence on skilled migration workers. Generally, this situation has been consistent with Burapha and all other forestry operations that were reviewed;*
- *Erosion of plantations, soil compaction, damage to water course buffers, and an increase in sediment to streams causing water pollution;*
- *Increased road traffic and risks to public safety;*
- *The manual system does not permit for a second shift (night work).*

Burapha undertook a whole of system review of harvesting operations by comparing itself to similar forestry companies in China, Malaysia, Thailand and Laos. The focus of the review was to look at environmental risk mitigations, safety improvements and haulage efficiencies that could best service the plywood mill in Hinheup and plantation expansion.

Burapha took the decision to have its harvesting operations to become almost fully mechanized thereby reducing risk and increasing efficiency. In 2019 Two Cobra harvesters and two Elephant King forwarders were sourced from Ponsse Oyj Co. Ltd purchased by Linfox International Transport and Logistics Co Ltd (Linfox) who now are Burapha's harvesting contractor.

This automated harvesting system has the following advantages:

- *Ponsse Oyj set the world standard for forest operations technology particularly in the field of steep slope operations and safety. The machines have fully enclosed cabins that are resistant to rollovers.*
- *Use of the machinery effectively eliminates safety risks associated with cutting, heavy lifting, and risks associated using human labor in extreme weather conditions;*
- *Smaller but multiple teams are required for operations;*
- *Local nationals, who operate the machines, have had training in-line with international standards. The training was supported by Ponsse Oyj technical staff.*
- *Machines can operate 24 hours a day.*

A Village Benefits Assessment is currently being undertaken which will assess the following:
1. The general impact (scale and result) of Burapha operations (+ve and -ve) on socio-economic development and livelihood benefits for partner villagers, before and since BURAPHA arrived? Reference must be given to the village land area under plantation compared to the total village area. Note. The answer to this question sets the basis for answering those below.
2. The impact (scale and result) of Burapha operations (+ve and -ve) on direct employment opportunities with an emphasis on finding out if vulnerable groups, HH and women have been adequately engaged? Challenges and successes?
3. Have vulnerable groups enjoyed meaningful consultations (FPIC), both internally within the village hierarchy and by Burapha representatives?
4. Have vulnerable groups and HH enjoyed opportunity to participate in converting their land parcels (if any) into plantations?
5. Consequence of Burapha operations (+ve and -ve) of village land conversion to plantations and the potential loss and gain of NTFP and TFP. Have vulnerable groups and HH suffered undue loss and increased hardships? This assessment can also consider impacts on local waterways, fish and other aquatic organisms as they relate to villager livelihood, where relevant. The consultant will also refer to the agroforest (intercropping/grazing) gains program.

Results of this Benefits Assessment will be available in 2024, and will include recommendations to be incorporated into the ESMMP.
Documentation provided by project participant
Scope of Work - village benefits assessment #2 _CSER_v1
VVB assessment **Date:** 16/10/2023
The finding requires the project to describe and comment on the concern what happens as harvesting activities are conducted by contractors using harvesters and not manually by the members of the local communities. Since the Village Benefits Assessment could not be verified in this round of verification, VVB in the next verification shall address this finding and assess this issue. This finding is converted to FAR#07

FAR ID	03	**Section no.**		**Date :** 29/05/2023
Description of FAR				
Sustainable development: The project proponent commits himself to set aside a minimum of 20% of the total area as protected area, “Special Management areas” (SMA). These areas shall be managed as nature conservation areas. The value of minimum 10% is already demanded and verified through FSC-audits. The 20% goal is not a stand-ard requirement. Nevertheless, and the PP has not yet developed and implemented parameters to monitor the successful implementation of the 20% target. Therefore, “Special Management Areas, SMA” should be included in the monitoring activities considered at next verification.				
Project participant response				**Date :** 29/07/2023
In parallel to the land use classification survey, Burapha undertake a land cover classification survey. This survey aims at gathering more detailed information on vegetation cover and identifying special management areas, such as buffer areas for rivers, streams and other water bodies, areas with high slope and areas of conservation value such as old forest or single large trees, all of these which cannot be planted (refer to Standard Operating Procedure PR404 – Special management areas). *For reference, the file “2016-2020_SMA-assessed_V20220707.xlsx” presents a summary of the areas that are identified as SMAs and are not to be planted.* *Using the ODK form, pictures are taken at predetermined locations on a 500-meters grid. At each point, survey staff take four pictures: facing North, South, East and West. These are uploaded to the Company database into the layer called “pfa_technical_survey”. The intention behind this data, collected by trained forest ecologists and without Government staff, is to support and refine the results of the land use classification field survey, which also collects vegetation data but from the perspective of land use. This land cover classification survey only focuses on vegetation cover and adds ecological criteria (refer to table above) to ensure that the area that will be selected does not include natural habitats with important biodiversity values and is 100% suitable for the purpose of eucalypt plantations.* *SMAs within the first Project Activity Instance area total 428.71 ha. Please refer to 2016-2020_SMA-assessed_V20220707.xlsx for the export from the database with the breakdown by compartment.*				
Documentation provided by project participant				
Standard Operating Procedure PR404 – Special management areas *2016-2020_SMA-assessed_V20220707.xlsx*				
VVB assessment				**Date:** 16/10/2023
VVB would like to seek more explanation whether any map analysis has been done in this regard.				
Project participant response				**Date :** 21/10/2023

The previous SMA database was not complete. See below for a description of the SMA establishment process and the *Burapha agroforestry excludes areas of land for planting that qualify as special management areas (SMAs), such a buffer areas for rivers, streams and other water bodies, areas with high slope and areas of conservation value such as old forest or single large trees, as described in the SOP "PR404 – Special Management Areas V2.0".* *During the PFA land acquisition process, Burapha undertakes a land cover classification survey. This survey aims at gathering more detailed information on vegetation cover and identifying SMAs, which are excluded from the proposed PFA concession area, which excludes them from conversion to plantations. Using the ODK form, pictures are taken at predetermined locations on a 500-meters grid. At each point, survey staff take four photos facing north, east, south and west as evidence. These are uploaded to the Company database in the "pfa_technical_survey" geographical dataset. The intention behind this data, collected by trained forest ecologists and without Government staff, is to support and refine the results of the land use classification field survey, which also collects vegetation data but from the perspective of land use. This land cover classification survey only focuses on vegetation cover and adds ecological criteria (refer to table above) to ensure that the area that will be selected does not include natural habitats with important biodiversity values and is 100% suitable for the purpose of eucalypt plantations.* *Once land is acquired, during the plantation development process, Burapha excludes any SMAs from being converted to plantations. A SMA assessment process is underway to assesses, map and classify SMAs on current land holdings that have undergone plantation development, as outlined in the "SMA assessment process". The assessment process includes the allocation and survey of ground survey points inside existing SMAs to assess and document their characteristics and four photos are taken facing north, east, south and west as evidence. To date 720 SMA ground surveys have been completed which are stored in the "20231019 SMA survey" dataset. The process is ongoing and the assessment of areas developed up to and including 2020 have been completed.* *The results of the SMA mapping and classification for the current carbon certification scope are stored as the "20220707 first instance SMAs established 2016-2020 excluding Xaiyabouli" geographical dataset. The total area of SMAs in the first Project Area Instance are 852.9 hectares.*
Documentation provided by project participant
Standard Operating Procedure PR404 – Special management areas *SMA assessment process.pdf* *20231019 SMA survey.zip* *20229797 first instance SMAs established 2016-2020, excluding Xaiyabouli.zip*
VVB assessment
FAR#03 is closed based on the review of the submitted evidence.

FAR ID	04	**Section no.**		**Date :** 29/05/2023
Description of FAR				
Non Permanence Risk Report, Project management: The PP shall assess the following at next verification: "Species planted (where applicable) associated with more than 25% of the stocks on which GHG credits have previously been issued are not native or proven to be adapted to the same or similar agro-ecological zone(s) in which the project is located."				
Project participant response				**Date :** 29/07/2023

Section 2.2.1 3) of the AFOLU Non-Permanence Risk Tool v4.0 states that "Evidence that species planted are adapted to the same or similar agro-ecological zone(s) in which the project is located may be demonstrated through: publications in scientific journals; technical reports from government agencies, NGOs or research groups; or, successful use over time by other projects registered under the VCS Program or an approved GHG program." *Burapha_Risk-Report_MR2 v1.0 states that "Despite Eucalyptus not being a native species to Lao PDR it has a long history of plantation in Lao PDR. In 1970 the first Eucalyptus species was introduced into the country, mainly as provenance trials and soon thereafter as plantation species with the main purpose to work as reforestation species (1). Overall growth shows a well adapted species, which is widely applied in Lao PDR.* *For Acacia there is very limited Lao specific information available as it has not been planted on the same scale as Eucalyptus. However, in neighboring Vietnam, there is more than 60,000ha of Acacia mangium or related clones established (2). In the absence of specific literature for Laos, this paper demonstrates Acacia mangium flourishes in a neighbouring, geographically very similar region in the tropics and on a very wide range of site conditions. Therefore it can be assumed that Acacia is also suitable/well-adapted for Laos.*
Documentation provided by project participant
Eucalyptus in Lao PDR - Bounphom Mounda (fao.org) *Acacia Plantation Development and the Configuration of Tree* *Burapha_Risk-Report_MR2 v1.0*
VVB assessment **Date:** 16/03/2024
VVB has checked the risk report and other evidence, the justification was found to be complete and appropriate. FAR#04 stands closed.

FAR ID	05	**Section no.**		**Date :** 29/05/2023
Description of FAR				
Double Counting: The FCPF-CF Northern Lao PDR Emission Reduction Program (ERPA) is focused on Emissions Reductions (ER) from reduced deforestation, forest degradation and enhancement of forest carbon stocks (REDD+) in six Lao PDR provinces, which includes Xayabouly Province/65/76/. This creates a potential for double counting of VERs in the mentioned prov-ince of Xayabouly. The "Announcement Letter" /44/ issued by Ministry of Agriculture and Forestry, does not clearly spec-ify the double counting aspect for PAIs in Xayabouly Province. Hence the PP excluded all areas from the present 1st verification assessment. For any future PAI the risk of double counting shall be assessed for all provinces covered by the ERPA/65/76/ or other programs, specifically Xayabouly Province, in line with the VCS Standard requirement (VCS 4.2, Section 3.21.3) at every upcoming verification assessment.				
Project participant response				**Date :** 29/07/2023
The current verification does not include any areas within Xayabouly Province. The raw data file "20230310 stand data.xlsx", tab "Data", Column C lists the province of each stand. In the calculation file "Burapha_Second_Monitoring_Calculation_280723.xlsx", tab "TSP + PSP_all" data is filtered to remove stands located in Xayabouly Province, therefore there is no risk of double counting for this verification event. *This will be updated for future verification events to ensure no double counting.*				
Documentation provided by project participant				
20230310 stand data.xlsx Burapha_Second_Monitoring_Calculation_280723.xlsx				
VVB assessment				**Date:** 16/10/2023
Since, the FAR require checking the area, it could not be confirmed if the Xayabouly Province has been removed from the project KML file, please share the project KML file with updates as per this finding.				

Project participant response	**Date :** 21/10/2023
This has been shared as the file “20230922 first instance stands developed 2016-2020 excluding Paklay.zip”. For clarification Paklay is the District in Xaiyabouly Province within the Burapha plantations.	
Documentation provided by project participant	
20230922 first instance stands developed 2016-2020 excluding Paklay.zip	
VVB assessment	
FAR#05 stands closed based on review of evidence.	

Table 2. CL from this verification

CL ID	01	**Section no.**		**Date :** 29/05/2023
Description of CL				
Section 3.2 of the MR It has been noted that the project is seeking methodology deviation, however, VVB would like to seek following clarification/ revisions in the MR. Please check the MR section 3.2 which has sections 3.2.1 and 3.2.2. Please revise the MR as per the template sections. Please justify the deviation type (project or methodology) by referring to the VCS standard. Also, confirm the PSPs requirements from the methodology or the tool that requires to have only PSPs. Please share the SOP of the field measurement to check the revisions made in the SOP for the inclusion of TSPs from this monitoring period onwards. The revisions in section 4.2 of the MR is also required for the inclusion of TSPs information as relevant. The plot size of PSPs and TSPs are also different as given in section 4.3 of the MR, please provide rationale to it with SOP.				
Project participant response				**Date :** 29/07/2023
Please refer to the updated Section 3.2 in the MR for a description of, and justification for, the methodology deviation. *Sections 6 & 7 have been added to the MR, which describe the full procedure for both PSPs and TSPs.* *Section 4.3 has also been updated to include the revised sampling intensity and sample plot size.*				
Documentation provided by project participant				
Reviewing and Developing Forest Mensuration Procedures, Report to Burapha Agro-Forestry, Paperbark Forestry Consulting, 27 November 2022 *Draft Mensuration Procedure* *Revised MR (v1.2)*				
VVB assessment				**Date:** 16/10/2023
The revisions made in the MR was checked and found correct, CL#01 stands closed.				

CL ID	02	**Section no.**		**Date :** 29/05/2023
Description of CL				
Section 4.2, 5.1 and 5.2 of the MR consists of project details for the monitoring period of years 2016-2020, kindly update the MR for the current monitoring period.				
Project participant response				**Date :** 29/07/2023
Sections 4.2, 5.1 and 5.2 if the MR have been revised.				
Documentation provided by project participant				

Revised MR v1.2	
VVB assessment	**Date:** 16/10/2023
The revision made in the MR for monitoring period was checked and found correct, CL#02 stands closed.	

CL ID	03	**Section no.**		**Date :** 29/05/2023
Description of CL				
Site visit observations The monitoring mentioned in the signed contract is 01/06/2021 to 23/02/2023. However, the monitoring period considered for the current assessment during site visit is 23/12/2020 to 18/10/2022. Kindly confirm the monitoring period and provide the project monitoring data and ER calculated sheet of the considered period.				
Project participant response				**Date :** 29/07/2023
When the verification contract was signed for the 2nd Burapha verification the project had not yet issued the credits from the first verification, and was resolving review questions raised by Verra. As part of the Verra process the end of the monitoring period for the first verification was changed to 22 December 2020 (the date of the last measurement from the sampling plot data included in the verification) rather than 31 May 2021. This meant that the start of the next monitoring period became 23 December 2020, rather than 1 June 2021. *During the verification site visit it was discussed and agreed with the auditor that data from TSP plots could be included up until 15 May 2023, rather than 23 February 2023. It was considered whether the proposed number of sampling point audits would still be statistically valid (the site visit planning was on a tight schedule which would have made the inclusion of more sampling point audits difficult). This was confirmed that the number of planned sampling point audits was sufficient.* *A revised data set including measurements performed up until 15 May 2023 was used to recalculate the emission reductions generated during the monitoring period.* *Differences in the average total tree biomass/ha in the previously identified plantation strata were identified. The differences are likely because of the inconsistency in the data points taken in each plantation year strata (due to changes to the sampling program as described in Section 3.2 of the Revised MR). The snapshot below shows the no. of plots taken in each stratum for different inventory years are not uniform. For example. for Acacia for the plantation stratum 2017 in the inventory year 2022 there were 29 sample plots taken whereas in the other two inventories i.e. 2021 and 2023 only 2 and 9 plots were taken. Similar can be observed throughout.*				

Row Labels	Average of Total tree biomass/ha	Count of Total tree biomass/ha
acacia		
2016		
2021	105.0995164	1
2022	160.2032378	13
2017		
2021	73.74375637	2
2022	153.4673616	29
2023	149.4156529	9
2018		
2021	44.60344734	2
2022	90.4022285	4
euc		
2016		
2021	131.0211963	52
2022	119.4017813	270
2023	146.1249652	327
2017		
2021	103.3862029	25
2022	125.6485306	251
2023	134.2638227	64
2018		
2021	82.34730946	17
2022	97.89535136	21
2023	139.0317779	28
2019		
2021	48.13424063	10
2022	49.33643219	13
2020		
2021	7.817318087	8
Grand Total	**127.9798935**	**1146**

We have therefore taken into account the cumulative change in carbon stocks and then the VCUs were divided equally into 2020, 2021 and 2022.

Since 2023 data is not available for all the strata (one stratum for Acacia and three strata for Eucalyptus), we have not added the credits for inventory 2023. Also, since the next monitoring period will be starting in 2023, if we claim some of it in the second monitoring period then there might be issues with adjustment later. We have therefore revised the monitoring period dates again to 23.12.2020 to 31.12.2022.

The monitoring period dates have also been revised in the monitoring report.

Documentation provided by project participant

Revised MR v1.2
Burapha_Second_Monitoring_Calculation_280723.xlsx

VVB assessment	**Date:** 16/10/2023

The revision made in the MR for monitoring period was checked and found correct, CL#03 stands closed.

CL ID	04	**Section no.**		**Date :** 29/05/2023

Description of CL

Section 1.11 of the MR
SDG targeted in this project are SDGs 8, 13 and 15. However, section 1.11 consists of training and capacity building initiatives. Kindly explain how the training is imparted in this project. Who provide the trainings, medium and training topics. Has it been factored in for SDG contributions? How the trainings records will be maintained and produced for assessment?

Project participant response	**Date :** 29/07/2023

Section 1.11 of the MR has been updated to include further detail on the SDGs targeted by the project. There was no content in the original MR related to training and capacity building initiatives. Please advise if this issue still requires clarification.

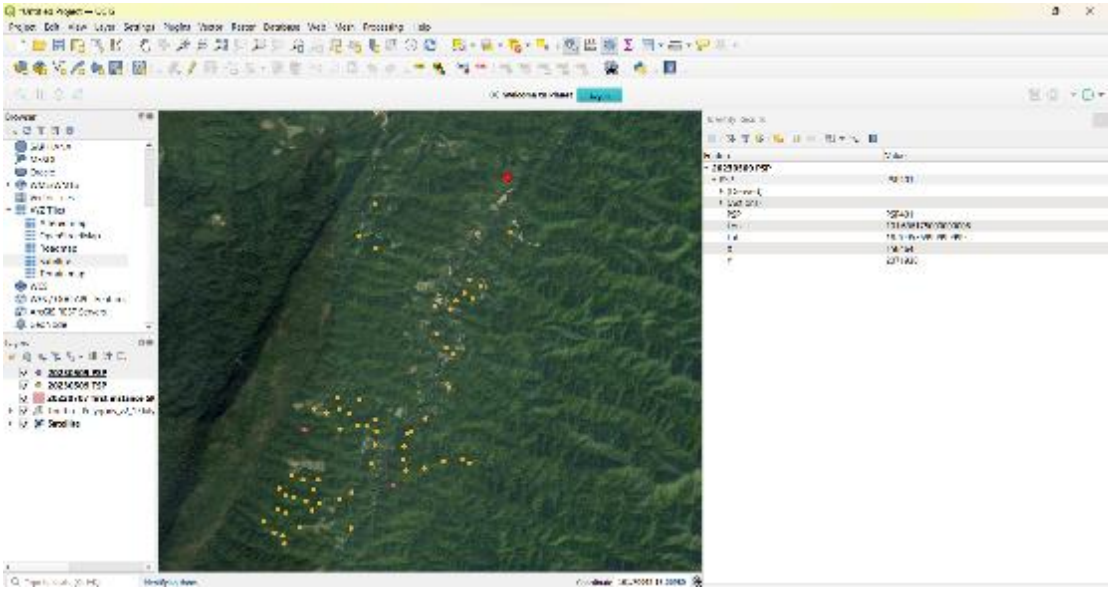
Documentation provided by project participant

Revised MR v1.2

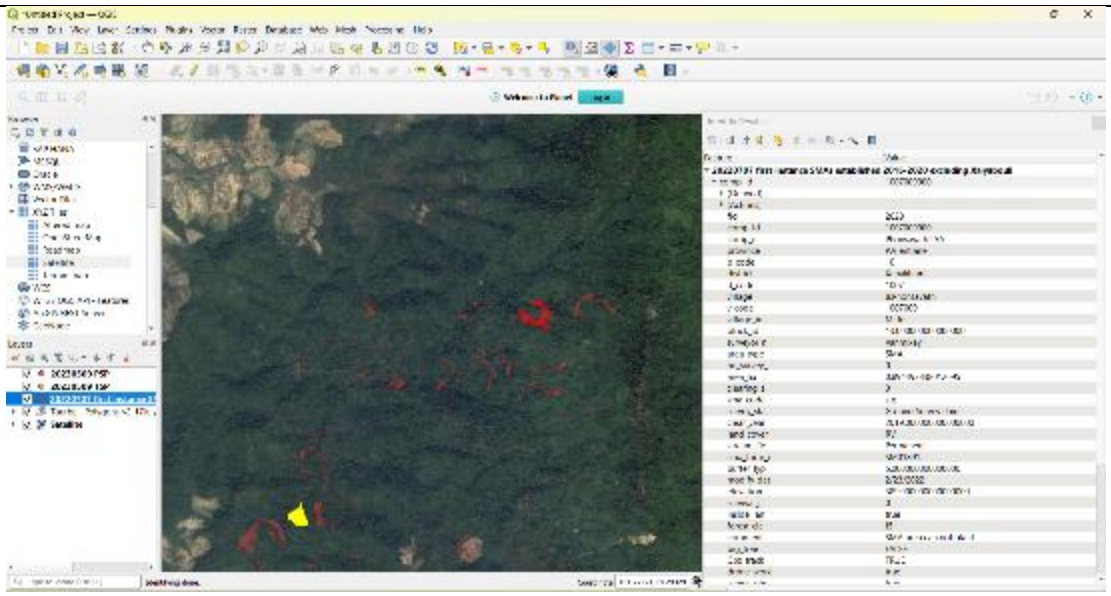
VVB assessment	**Date:** 16/10/2023
The revisions made in the MR for the SDGs contributions were checked and found correct, CL#04 stands closed.	

CL ID	05	**Section no.**		**Date :** 01/11/2023
Description of CL				

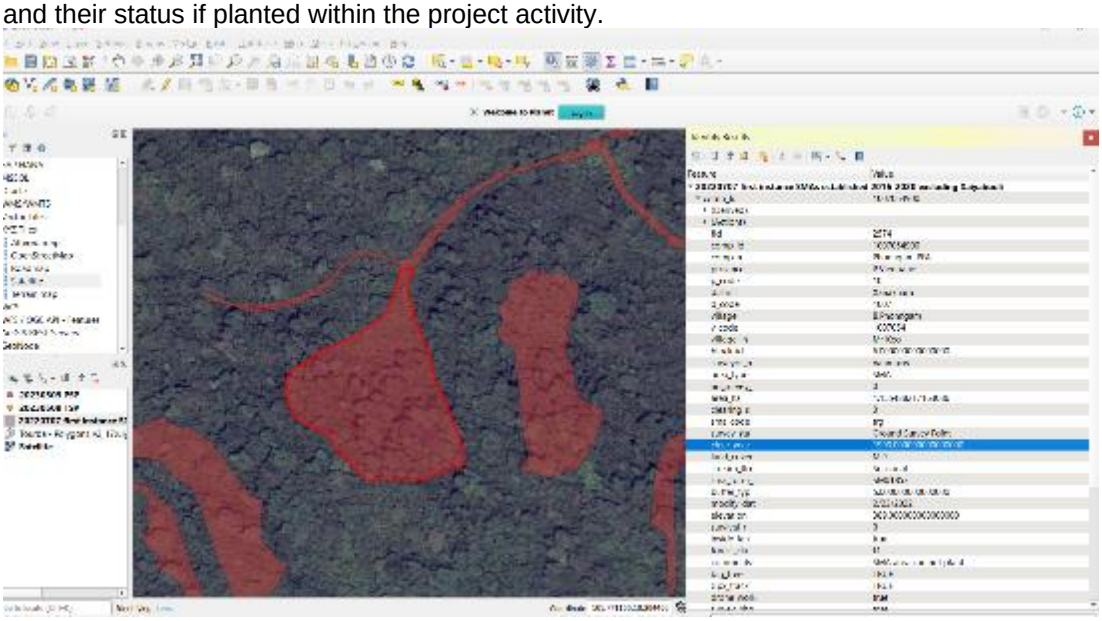
1. PP is requested to clarify why do the majority of the Permanent Sample Plots (PSP) and Temporary Sample Plots (TSP) points fall outside the boundaries of the project activity area?



2. In some patches, the absence of PSP (Permanent Sample Plots) and TSP (Temporary Sample Plots) raises concerns about the accuracy of mean annual increment (MAI) and growth rate calibration. PP is requested to provide clarification on how these important metrics are calibrated without a single representation of the area. Additionally, it's unclear to which strata this area belongs, and clarification is also requested in this regard.



3. Certain fields appear to have a significant presence of mature trees and dense plantation across most of their area. PP is requested to provide further clarification regarding these plantations and their status if planted within the project activity.



Project participant response	**Date :** 16/01/2024
The VVB has mistakenly used the SMA shapefile as the plantations instead of the plantation shapefile. Please be sure to use the shapefile "20230922 first instance stands developed 2016-2020 exlcuding Paklay.zip"	
Documentation provided by project participant	
VVB assessment	**Date:** 22/02/2024
CL#05 stands open. The open issue is pertaining to the precision of mean annual increment (MAI) and the calibration of growth rates. PP is requested to provide clarification regarding the methodology employed for the calibration of these crucial metrics, particularly given the absence of a singular	

representation of the area. Moreover, the delineation of the specific strata to which this area pertains remains unclear. Please refer to CAR#11 for further reference for this finding.
Project participant response **Date :** 29/02/2024
There are sample plots outside of the first project instance boundary because all plot data for all plantations were shared. This does not present a problem as the growth and yield modelling system used applies the plot data to the stands they are within to develop stand level aggregated data. If stands do not have plots then averages for that planted year strata are applied. It is important to note that stands are not sampled until they reach 3 years of age, which is a standard industry practice as early age measurements are not reliable for predicting full rotation growth and yield, as detailed in the Mensuration SOP.
Documentation provided by project participant
VVB assessment **Date:** 27/09/2024
CL#05 stands closed based on the justification provided by PP.

Table 3. CAR from this verification

CAR ID	01	**Section no.**		**Date :** 29/05/2023
Description of CAR				
Section 1.1 The section of the PD lacks the description of project technology, relevant implementation dates, and implementation status. Please refer to the following guidelines of the VCS MR template and update the MR. *Provide a summary description of the implementation status of the project, including the following (no more than one page):* *• A summary description of the implementation status of the technologies/ measures (e.g., plant, equipment, process, or management or conservation measure) included in the project.* *• The relevant implementation dates (e.g., dates of construction, commissioning, and continued operation periods).* *• The total GHG emission reductions or removals generated in this monitoring period*.				
Project participant response				**Date :** 29/07/2023
An updated summary of the current implementation status of the project, relevant dates and total GHG removals has been added to the MR. See Section 1.1 of the revised MR.				
Documentation provided by project participant				
Revised MR v1.2				
VVB assessment				**Date:** 16/10/2023
The revision made in the MR section 1.1 was checked and found correct, CAR#01 stands closed.				

CAR ID	02	**Section no.**		**Date :** 29/05/2023
Description of CAR				
Section 2.1 of the MR This section identify and addresses the issues of spread of non-native invasive species, introduction of invasive species, etc. Please explain how these issues are mitigated in the project. As per the VCS MR template guidelines of section 2.1, PP is required to summarize any potential negative environmental and socio-economic impacts and the steps taken to mitigate them. Also, share the evidence for the activities performed and reported in section 2.1 such as training records, soil testing reports, records of fertilizer application, etc.				
Project participant response				**Date :** 29/07/2023

Section 2.1 of the MR has been updated.
Documentation provided by project participant
Set of Work Instructions contained in the zipped file Work Instruction and Planation Flowchart *Training Record 2020:* *Training record 2021:* *Training Record 2022:* *Training record 2023 – separate attachment made available to the auditor.* *Soil testing 2021 – 2023:* *Records of fertilizer application 2021* *Records of fertilizer application 2022* *Revised MR v1.2*
VVB assessment **Date:** 16/10/2023
The evidence received were checked and found appropriate, CAR#02 stands closed.

CAR ID	03	**Section no.**		**Date :** 29/05/2023
Description of CAR				
Section 2.2 of the MR The Land Use Limitations Register is mentioned in this section for grievance lodging. Please elaborate about the establishment of this system and substantiate with relevant evidence. Also, provide the details of the project in line with the template requirements of the MR section 2.2. • The procedures or methods used for engaging local stakeholders (e.g., dates of announcements or meetings, periods during which input was sought). • The procedures or methods used for documenting the outcomes of the local stakeholder communication. • The mechanism for on-going communication with local stakeholders. • How due account of all and any input received during ongoing communication has been taken. Include details on any updates to the project design or justify why updates are not appropriate. For AFOLU projects, also demonstrate how the project has communicated the following with local stakeholders: • The results of project implementation, including the results of monitoring. • Any changes, where relevant, to risks, costs and benefits the project may bring to local stakeholders. • Any changes, where relevant, to relevant laws and regulations covering workers' right in the host country. • The process of VCS Program verification and the validation/verification body's site visit.				
Project participant response				**Date :** 29/07/2023
Section 2.2 of the MR has been updated.				
Documentation provided by project participant				

LAM Update https://buraphawood.sharepoint.com/:b:/g/cser/EedYwzuQe4FOi8ph0_XHBbkB_YIfvm8LHhOqE9rDDWHfgg?e=UdGZ67 *LAM Appendices https://buraphawood.sharepoint.com/:f:/g/cser/Et0yHX3-we5Dht9oStRHSLwBDo0k8Ff_5YNc-rjV7EJavg?e=YCbFX3* *Community Engagement SOP https://buraphawood.sharepoint.com/:b:/g/cser/EeDSwVV43e9NgP8OplY6uesB5UriDUFwaJ11jWKsGQhpkw?e=okp8mO* *Grievance Register https://buraphawood.sharepoint.com/:f:/g/cser/EmudqeRM0HZBi3cmoiGAk2UBldllXidK_cOYUXwhCeoFPg?e=fokX1f* *Formal Village Meetings 2020 https://buraphawood.sharepoint.com/:f:/g/cser/Ehk9EFKjHJJCueXU1lF86oEBtxAleneFSPM3tRzGpF6_kg?e=grE9G9* *Formal Village Meetings 2021 Cancelled due to COVID outbreak* *Formal Village Meetings 2022 https://buraphawood.sharepoint.com/:f:/g/forestry/EhSzcYz3cZpLm5DeCFH478kB5EW51dHvjMZf5-fVMrCi4g?e=fRlHXw* *Formal Village Meetings 2023 – to be added to the database*
VVB assessment **Date:** 16/10/2023
The evidence received were checked and found appropriate, and MR section 2.2 revisions were found complete, CAR#03 stands closed.

CAR ID	04	**Section no.**		**Date :** 29/05/2023
Description of CAR				
Section 2.3 of the MR was found to be incomplete with the project details required to be filled as per the VCS MR section 2.3 template. For AFOLU projects, provide details on the following: • Activities implemented to mitigate risks local stakeholders due to project implementation. • Any updates, where relevant, to the property and land use rights of the local stakeholders and a demonstration that the project has not negatively impacted such rights without first obtaining the free, prior and informed consent of the affected parties, and provided just and fair compensation if done so. • The processes used to communicate and consult with local stakeholders during the monitoring period, including any information about any conflicts that arose between the project proponent and local stakeholders and whether any such conflicts were resolved via the established grievance redress procedure. For AFOLU projects with no impacts on local stakeholders, provide evidence of such.				
Project participant response				**Date :** 29/07/2023
Section 2.3 of the MR has been updated.				
Documentation provided by project participant				

Formal Village Meetings 2020 *https://buraphawood.sharepoint.com/:f:/g/cser/Ehk9EFKjHJJCueXU1lF86oEBtxAleneFSPM3tRzGpF6_kg?e=grE9G9* *Formal Village Meetings 2021* *Cancelled due to COVID outbreak* *Formal Village Meetings 2022* *https://buraphawood.sharepoint.com/:f:/g/forestry/EhSzcYz3cZpLm5DeCFH478kB5EW51dHvjMZf5-fVMrCi4g?e=fRlHXw* *Formal Village Meetings 2023 are a separate document (see Reference folder).*
VVB assessment **Date:** 16/10/2023
The evidence received were checked and found appropriate, and MR section 2.3 revisions were found complete, CAR#04 stands closed.

CAR ID	05	**Section no.**		**Date :** 29/05/2023
Description of CAR				
Section 3.1 of the MR The section of the MR consists of only information of project area and species, the section needs to be updated as per the VCS MR section 3.1 template requirements. "Describe the implementation status of the project activity(s), include information on the following: • The operation of the project activity(s) during this monitoring period, including any information on events that may impact the GHG emission reductions or removals and monitoring. • For AFOLU projects, where no new project activities that lead to the intended GHG benefit commenced during the monitoring period, discuss whether project activities that commenced prior to the monitoring period continued to be implemented during the monitoring period. • Where applicable, describe how leakage and non-permanence risk factors are being monitored and managed for AFOLU projects. • Any other changes (e.g., to project proponent or other entities)."				
Project participant response				**Date :** 29/07/2023
Section 3.1 of the MR has been updated.				
Documentation provided by project participant				
VVB assessment				**Date:** 16/10/2023
The MR section 2.2 revisions were found complete, CAR#05 stands closed.				

CAR ID	06	**Section no.**		**Date :** 29/05/2023
Description of CAR				
The current version of MR is missing section 3.3 Grouped projects. Please check VCS MR template and add the missing sections.				
Project participant response				**Date :** 29/07/2023
The missing Section 3.3 has been added to the revised MR.				
Documentation provided by project participant				
Revised MR v1.2				
VVB assessment				**Date:** 16/10/2023
Revisions made in the MR section 3.3 was checked and found complete, CAR#06 stands closed.				

CAR ID	07	Section no.		Date : 29/05/2023
Description of CAR				
Section 5.4 is required to be updated with the net GHG emission reductions and removals values for the current monitoring period. Also, update the table 15 year column as per the VCS MR template guidelines, in Year A (DD-Month-YYYY - DD-Month-YYYY)				
Project participant response				**Date :** 29/07/2023
The MR has been updated.				
Documentation provided by project participant				
Revised MR v1.2				
VVB assessment				**Date:** 16/10/2023
Revisions made in MR section 5.4 waas checked and found complete, CAR#07 stands closed.				

CAR ID	08	Section no.		Date : 29/05/2023
Description of CAR				
Section 1.11 of the MR 1. Targeted SDGs given in section 1.11 are SDG 8, 13, 15, while table 2 consists of SDGs 1, 3, 13 and 6. Please clarify and provide the SDGs in the MR. Also, substantiate with sufficient evidence to confirm the values/ results of current project contributions. 2. Also, relate to the official SDG targets and indicators and confirm whether there has been any monitoring parameter added to monitor any of the outcomes of SDG.				
Project participant response				**Date :** 29/07/2023
1. *Table 2 in the original MR had not been completed (i.e. the table consisting of SDGs 1, 3, 13 and 6 were the sample SDGs supplied in the VCS MR template. Table 2 has now been updated in the revised MR.* 2. *Burapha is currently undertaking a Baseline socioeconomic livelihood assessment of four new partner villages. The information collected is the same as that collected for villages and reported in the ESIA, (please refer to the ESIA link below to see this information). The follow up on village livelihood progress (ie an assessment of the villages whose baseline situation was undertaken with the ESIA) is being done under the Village Benefits Assessment (VBA) currently underway. For example, baseline data collected in a new partner village from 2018 is compared against new data collected in 2023 under the VBA project. When these reports are completed their findings will be incorporated into Burapha's E&S management system, such as the Land Acquisition Manual, Forest Operations procedures. In the interim there are processes to capture labour contracts, annual daily wage negotiations, records of training, FSC certification. See links to documents below.*				
Documentation provided by project participant				

FSC certificate *ESIA* *https://buraphawood.sharepoint.com/:f:/g/cser/ElRyMxvCNwtMtUu0Eog6PT0BZRFWVYEutdEdNU3iriMDlw?e=zNx1a4* *New partner village socioeconomic surveys in 2021* *https://buraphawood.sharepoint.com/:f:/g/cser/Ekm0qW8U3k5OpC6pLb6DdGgBfbLuMhF99GKkdc98aN96Yw?e=7phsgJ* *New partner village socioeconomic surveys in 2022* *https://buraphawood.sharepoint.com/:f:/g/cser/EsS_Gx0p6jJEggFnEYd67jMBrU-EYw2Q89NCGK42ashFzg?e=SYtQ3y* *Daily Labor Wages Review 2023* *https://buraphawood.sharepoint.com/:b:/g/cser/EZJuRVwNL3pPpdSENR3_JdUBvm_eRXsV1XcXXOjC1CA6yw?e=p1Dsop* *Daily Labor Wages Review 2022* *https://buraphawood.sharepoint.com/:b:/g/cser/Ec-GN7fuo85Dg6oAmuZd3m8B4HeuqU5gETLj1IYnYtf5Vw?e=VABcsu* *Burapha Position Training Matrix (currently being updated)* *https://buraphawood.sharepoint.com/:x:/g/cser/EdIhuzJrFQlCjnhTI06Q1uUB7FXtEdb9GGX4m17iVbTMsg?e=CEGIxH* *Training Record 2020* *https://buraphawood.sharepoint.com/:x:/g/cser/EWO2lqNOVbVHoz-dMbwBmVoBUj83v-DVwYak1whW2L3HlQ?e=BbbihF* *Training record 2021* *https://buraphawood.sharepoint.com/:x:/g/cser/EePzhY-gXrtKr57bKuNQVwgBS67ZwQ-_yE6KMQPlBc7xkA?e=UU3B9r* *Training Record 2022* *https://buraphawood.sharepoint.com/:x:/g/cser/EeqP2nJ6cZFKq_Hh5Q6-O0YBuXoECJxV-po0d-bU-icR9g?e=QdaLnW* *Training record for 2023 (attachment only, not yet in database)*

VVB assessment	**Date:** 16/10/2023
The evidence received for SDG contributions were checked and found appropriate, and MR section 1.11 revisions were found complete, CAR#08 stands closed.	

CAR ID	09	**Section no.**		**Date :** 29/05/2023
Description of CAR				
Site visit observations – Field measurements 1. Though the project is seeking deviation for the type of sample plots and adding TSPs from the current monitoring period. It is requested to clarify and provide the SOP or manual for field measurement developed for the project that consists of plot information of TSPs and PSPs. It is given that Permanent Sample Plots (PSPs) are of radius plot (r=17.84 m, area=0.01 ha) while the size of the TSPs is 0.5 ha. Please substantiate to confirm the same.				

2. During the plot measurements, it was found that the size of the TSPs and PSPs are varied (0.5 ha, 0.1 ha). Please explain how this is in conformance to the field SOP. Also, update the MR with the correct information for monitoring information of field plots.
3. During the site visit, the field personnel demonstrated the calibration of the instrument however, the details of the instrument and calibration requirements are not provided in the MR. Kindly update the MR and provide the sufficient evidence.
4. The field personnel showed the method of measuring the trees and calculating the DBH and height. They mentioned doing the tree measurement by walking in certain pattern, since this could not be confirmed from MR or other document, kindly share the document that confirmed the field measurement protocols.
5. VVB has selected plots randomly for field measurement. Two plots PSP 263 and TSP 4618 were found to be overlapping when inspected on site. VVB decided to drop the PSP and took TSP measurements. Kindly update the Monitoring datasheet and remove the PSP 263 from the calculations.
6. It was given in the MR that the plots are stratified based on age class, however, the plot TSP 4618 had trees of different age class (as shown in the photograph), kindly explain.

It has been explained during the site visit that the PSPs are marked through ribbons and TSPs are marked through paints. However, PSP 263 and TSP 4618 were not marked properly and were

identified through geo-coordinates. PP shall explain what the monitoring measures are placed to avoid these errors.

Project participant response	**Date :** 29/07/2023

(1) *The procedures followed for establishment of PSPs in the past are available in "Procedures of PSP". Note that these procedures will be superseded by the "Draft Mensuration Procedure 2023". In the past circular PSPs were established with a radius of 17.84m and a total area of 0.1 ha (0.0999 ha). In the future, if PSPs are established they will follow the new procedure, which species 40m x 40m plots (0.16 ha). TSPs are established in accordance with "Draft Mensuration Procedure 2023" which specifies 0.05 ha circular plots. The PSP and TSP procedures (i.e. from the new "Draft Mensuration Procedure 2023") have been added as appendices to the MR.*

(2) *Please see response (1) above.*

(3) *Reference to the calibration manual "Vertex_IV_Manual" has been added to the MR in Section 6.*

(4) *Please refer to Section 6 and Section 7 of the MR.*

(5) *Data for PSP 263 has been deleted. Please see the updated monitoring calculations "Burapha_Second_Monitoring_Calculation_280723"*

(6) *The trees in TSP 4618 are the same age class, although variability in terms of thriving occurs, which can explain differences in the size of trees of the same age class. The Draft Mensuration Procedure 2023 states the following procedures*

- *Dead or broken trees without a crown, or without any live branches, must be excluded from the enumeration.*
- *In case of ovality (elliptical stems) or deformation of the stem, the side with the smallest DBH must be measured as DBH.*
- *All planted stems must be measured provided the DBH is ≥ 5 cm. This number can be adjusted by the planning team according to the age of the stand being measured. If the stand only contains small trees, then all trees should be measured. If the stand in general have trees of much larger DBH, say 20cm, then small trees less than 5cm may be ignored during the enumeration. The purpose is to eliminate measurement of stems that will obviously not contribute volumes at clearfelling.*
- *Do not measure if the tree is a different species to the main stand.*
- *In case of double stems in one planting pit, measure only the largest DBH.*
- *If a fork occurs under breast height (1.3 m), then measure only the largest DBH.*
- *In coppiced stands for trees with multiple stems, measure the stem with the largest DBH for stem counting.*

In case of double stems in one planting pit, measure only the largest DBH.

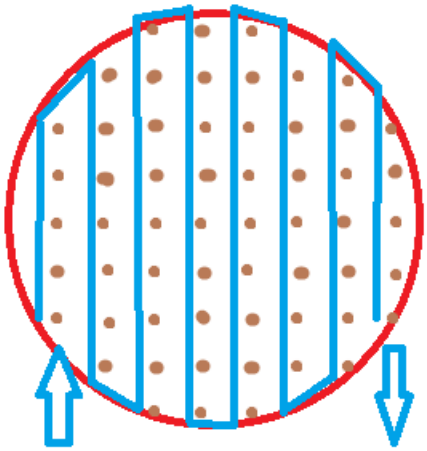
- *If a fork occurs under breast height (1.3 m), then measure only the largest DBH.*
- *In coppiced stands for trees with multiple stems, measure the stem with the largest DBH for stem counting.*

(7) *Circular PSPs (ie the recent practice) are marked with a PSP plot centre (a 40cm PVC pole with aluminium tag). Trees surrounding the PSP plot centre, and boundary trees are also marked with an aluminium tag, creating three ways of identifying the PSPs.*

In the case of PSP 263 the plot centre marker had been destroyed by a tractor, however the surrounding and boundary trees were still tagged, allowing identification of the plot centre (confirmed with geo-coordinates).This was an example of how plots can still be identified, even if markers or tags are missing/destroyed.

For TSPs the following process is followed, which allows identification of the plot centre, surrounding centre trees, plot boundary and boundary trees, even if markers etc are removed/destroyed (please refer to Appendix 3, Section 3.4 & 3.5 of Draft mensuration procedures):

- *All plot centres located in the field are to be clearly marked with a painted stick, which should be no less than 0.3 m tall. The colour of the paint must be clearly visible, e.g., yellow, orange or white.*
- *The non-marked tree closest to the plot centre should be clearly numbered with the plot number, facing the direction of the cruising line. If plots are not marked, the enumeration will have to be repeated.*
- *The four trees surrounding the plot centre are marked with and 'X' using spray paint.*
- *The transponder pole must be placed vertically at the plot centre when laying out a plot to determine the plot diameter.*
- *The centre point of each plot must be captured with the GPS and numbered accordingly.*
- *Tree measurement pattern*
- *Measure the trees in the plot tree by tree and row by row following the below pattern.*



- *The plot boundary should be established by using a Vertex. The trees within the plot radius (distance from the Vertex to Transponder) fall inside the plot and must be measured. Border trees are located on the plot boundary and are marked with a single ring using spray paint. At least two Vertex readings must be taken on both sides of the tree to determine if it falls inside the plot or not.*
- *When the distance reading is taken with the Vertex, the Vertex must be held at the centre of the tree's DBH and must face towards the transponder.*

This information has been added to Section 6 in the MR.

Documentation provided by project participant	
Vertex_IV_Manual *Burapha_Second_Monitoring_Calculation_280723* *Draft mensuration procedures*	
VVB assessment	**Date:** 16/10/2023
The evidence of Manual and calculation sheet were checked and found okay, however it is not clear whether there is final mensuration procedures document provided or not. Please check and confirm, CAR#09 stands open.	
Project participant response	**Date :** 21/10/2023
The mensuration procedure has been finalized. See link to Mensuration procedure v1 below.	

Documentation provided by project participant
Mensuration procedure v1 *https://buraphawood.sharepoint.com/cser/Shared%20Documents/Forms/AllItems.aspx?ga=1&id=%2Fcser%2FShared%20Documents%2FENVIRONMENT%2FClimate%2FCarbon%20Certification%2FFull%20Certification%2FCarbon%20Credit%20%232%2FCC%232%20Data%20Room%2FResponse%20to%202nd%20Round%20of%20Findings%2016%20Oct%202023%2FMensuration%20procedure%20v1%2Epdf&viewid=918a3bdb%2Dfe0a%2D4e6e%2D840d%2D22170a747805&parent=%2Fcser%2FShared%20Documents%2FENVIRONMENT%2FClimate%2FCarbon%20Certification%2FFull%20Certification%2FCarbon%20Credit%20%232%2FCC%232%20Data%20Room%2FResponse%20to%202nd%20Round%20of%20Findings%2016%20Oct%202023*

VVB assessment	**Date:** 16/10/2023

After assessing the revised KML and the documents provided in response to CAR 11 (Response date: 21/10/2023)

During the site visit on day 1, it was observed that the two Permanent Sample Plots (PSP) are located in close proximity, with only a few trees between them. However, it was noted that only one PSP (PSP ID: PSP332) is present in the KML and PSP & TSP vector files. Furthermore, the PSP falls outside the project activity area. PP is requested to provide clarification regarding this inconsistency.

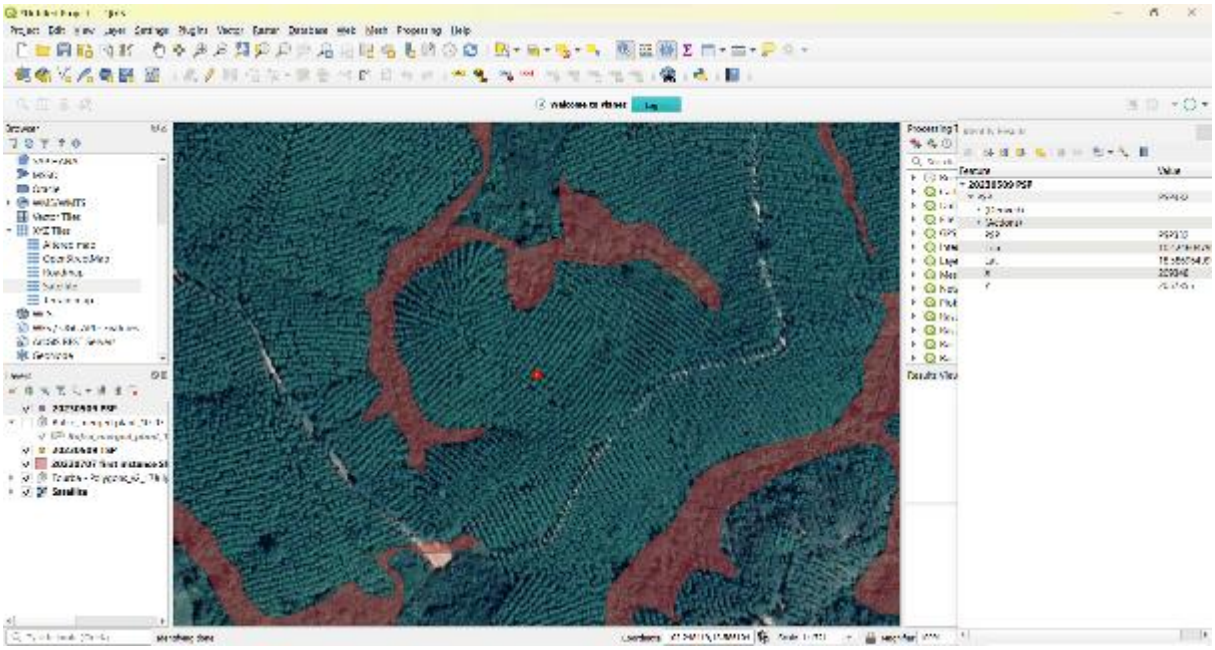


Figure 1: Project area KML with PSP & TSP

Project participant response	**Date :** 16/01/2024

There is no PSP located in close proximity to PSP332. The nearest plot that was measured was PSP331, which was about 500 m away.

VVB has mistakenly used the SMA shapefile as the plantations instead of the plantation shapefile. Please be sure to to use this shapefile "20230922 first instance stands developed 2016-2020 exlcuding Paklay.zip"
Documentation provided by project participant
20230922 first instance stands developed 2016-2020 exlcuding Paklay.zip
VVB assessment **Date :** 02/02/2024
Noted. Following a thorough review of the revised KML file, it is confirmed that the previously mentioned issue has been resolved and is now considered closed.

CAR ID	10	**Section no.**		**Date :** 29/05/2023
Description of CAR				
Site visit observations -Field measurements 1. What are the wildfire occurrences in the project area? Please explain in detail with sufficient literature and studies, the causes, effects, and current scenario of wildlife in project area. How is this monitored in the project site and prevented from widespread. 2. It has been mentioned that this project includes the application of soil fertilisers in the MR. Explain the fertilizer application, NPK ration, need of fertilizer, recommended dosage, government regulations in commercial plantations and whether there are any restrictions to application of synthetic fertilisers. 3. Weeding and firebreak, etc are part of plantation sites activities, however, it is not given in the MR. Please explain the steps of land preparation and management prior and during the plantation cycle, which are planned to be implemented on the project site. Also, state what activities require monitoring and who is responsible for these plantation activities. It was also discussed during site visit interviews that villages are provided with the trainings for all the plantation activities, however, the same has not been discussed in the MR. Kindly describe in details				
Project participant response				**Date :** 29/07/2023
1. *Please refer to SOP PR800 V1.0 – Plantation Fire Management, Preparedness and Response for details. Incident report, geo coordinates of boundaries* 2. *Please refer to the zipped file Work Instruction and Plantation Flowchart, BAFCO Work Instruction Fertilization which describes the process of fertilizer application. Please also refer to Fertilizer Application Records 2021 and 2022, links provided below.* 3. *Please refer to the zipped file Work Instruction and Plantation Flowchart which describes the steps and responsibilities for land preparation and management prior and during the plantation cycle. Please also refer to Section 4.3 of the MR for monitoring plan information.* 4. *Please refer to the Burapha Position Training Matrix and Training Records for 2020, 2021, 2022, links provided below. Training records for 2023 are included as an attachment, as they have not yet been included in the database. Section 2.1 in the MR includes a description of training for both staff and villagers.*				
Documentation provided by project participant				

Fertilizer Application records 2021 *Fertilizer Application records 2022* *Training Record 2020* *Training record 2021* *Training Record 2022* *Training record for 2023*
VVB assessment **Date:** 16/10/2023
The evidence received were checked and found appropriate, CAR#10stands closed.

CAR ID	10	**Section no.**		**Date :** 29/05/2023
Description of CAR				
Site visit observations – LSC and interviews 1. During the interviews with locals of Phonmuang village, it was found that they were not aware fo the VCS project cycle and the on-site visit by VVB. Upon further discussion, it was found that Burapha team came but did not clearly mention the topic and purpose of VVB visit. In regard to this scenario, how PP is planning to maintain the ongoing communication with local stakeholders and inform them about each steps and milestone of a project. 2. During visit to Phangnern village, Mr khan (one of the interviewees) mentioned that they have submitted the grievance. However, this could not be confirmed as no physical records were available. Please provide the grievance received and other comments or concerns received from the locals in this monitoring period. In addition, kindly explain in the MR, how the concerns or grievances are duly addressed. 3. Locals of the Nakang village mentioned that they are aware of the project and interested in long term engagement however, they are also interested to get grazing areas for their animals. How is PP planning to address this comment? Also, kindly indicate if PP had received this request earlier also? 4. Regarding the communication with locals, it was explained during PP's interviews and locals interviews that the communication medium is verbal and field personnel visit villagers monthly or sometimes in 2-3 months or in emergency cases. Please provide the supporting document to confirm the LSC communication details.				
Project participant response				**Date :** 29/07/2023

1. *Refer to village consultation minutes from 2020 (link below). The villages were consulted about the carbon aspirations of Burapha in 2020. Presentations and consent forms provided, minutes taken. The attendance of villagers to meetings is highly variable. Peoples priorities in local villages is focused on work and family. Burapha meetings regarding operational matters / carbon a lesser priority. The head of a village always attends meetings (or deputises). Other villagers may attend some meetings but only as their time permits. Consent to carbon or any other topic is provided at the village level, not by individuals. In some cases villagers do confuse the visits of external stakeholders as they are visited by FSC auditors, investors, international development agencies, consultants, VCS auditors, CCB auditors.*
2. *Please refer to the Community Grievances Register (link below) for records of grievances received and actions taken in response. Please also refer to the Grievance Management and Dispute Resolution SOP (link below).Information about the grievance management process has been added to Section 2.1 of the Revised MR.*
3. *Permission to graze after Year 2 is part of our standard model. It has been communicated to the village on multiple occasions (i.e. land acquisition, labour consultations, yearly consultations) that grazing is permitted after Year 2. Refer also to daily labor communications sent to each partner village (Daily Labor Wages Review links below).*
4. *The mechanism for on-going communication with local stakeholders follows the requirements in the Community communication SOP, the Land Acquisition Manual (LAM) + there has been recruitment of additional community liaison team members (to a team of 5 staff) in 2023. There are formal yearly village meetings (pre-planting labour meeting + yearly consultations) plus numerous informal meetings and calls, which are not always recorded (refer to Community Engagement SOP).*

Documentation provided by project participant

Formal Village Meetings 2020

Formal Village Meetings 2021

Formal Village Meetings 2022

Formal Village Meetings 2023

Daily Labor Wages Review 2023

Daily Labor Wages Review 2022

Community grievances register_ Burapha Operations_2021 and 2022

ESIA Forestry Ops

Community Engagement SOP

Grievance Management and Dispute Resolution SOP

Revised MR v1.2

VVB assessment	**Date:** 16/10/2023

Since the MR has been revised to include the complete details of LSC and further evidence checked were found to be appropriate, CAR#10 stands closed.

Table 4. FAR from this verification

FAR ID	06	**Section no.**		**Date :** 16/02/2024
Description of FAR				
This following FAR has been raised at the time of during joint validation and 1st verification assessment. However, the issue is still open and therefore the FAR has been carried forward to be addressed in next verification. FAR context: The leakage tool has been applied. Leakage is considered “0”. Baseline scenario is described as shifting cultivation for upland rice production. This indicates that the land is required for livestock production. If the area is transferred into tree plantation the communities could look for other areas to grow rice, taking int account that intercropping is practiced only in the first year of plantation establishment. This could result in leakage attributable to the displacement of agricultural activities. During the onsite audit no indication of leakage was detected. Nevertheless, as the expansion of the plantation continues the probability of leakage increases. The PP is presently evaluating the possibilities of different monitoring parameters but there is no conclusion yet. Therefore, leakage monitoring should be part of the monitoring activities. Respective parameters should be developed and considered at next Therefore, leakage monitoring should be part of the monitoring activities. respective parameters developed and considered at next verification. In this verification period PP presented the justification and confirmed that results will be known by Q1 2024 and will include the identification of potential actions necessary to ensure that leakage is monitored effectively. Since, the results of the analysis will be checked in future, the FAR remains open and shall be addressed by next VVB.				
Project participant response				**Date :** DD/MM/YYYY
Documentation provided by project participant				
VVB assessment				**Date:** DD/MM/YYYY

FAR ID	07	**Section no.**		**Date :** 16/02/2024
Description of FAR				

This following FAR has been raised at the time of during joint validation and 1st verification assessment. However, the issue is still open and therefore the FAR has been carried forward to be addressed in next verification. FAR context: As detected during the field inspection the harvesting activities are conducted by contractors using harvesters and not manually by the members of the local communities as described and planned in earlier descriptions/16/18/. This might result into a reduction of Job opportunities for the villagers/local communities and therefore in less income than expected. Furthermore, the intercropping practically takes only place in the first year after planting /16/17/18/19/. The original planning had foreseen intercropping during the first two years to "ensure that the plantations do not interrupt the traditional food production scheme of farmers and force them to practice shifting cultivation in new and forested areas" areas"/ 01/. At the present assessment there was no indication that's the change described causes any negative effect on the local communities. Nevertheless, no substantial information could be provided, whether these practices will have future negative effects on the wellbeing of the communities in terms of food supply or income generation and therefore requires further monitoring. In this verification period, PP responded that the results of this Benefits Assessment will be available in 2024 and will include recommendations to be incorporated into the ESMMP. VVB concluded that this finding requires the project to describe and comment on the concern what happens as harvesting activities are conducted by contractors using harvesters and not manually by the members of the local communities. Since the Village Benefits Assessment could not be verified in this round of verification, VVB in the next verification shall address this finding and assess this issue.
Project participant response **Date :** DD/MM/YYYY
Documentation provided by project participant
VVB assessment **Date:** DD/MM/YYYY